STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 95784

TO: Ganapathy Krishnan
Location: 8d08 / 8b19
Thursday, June 05, 2003
Art Unit: 1623
Phone: 305-4837
Serial Number: 10 / 009805

From: Jan Delaval
Location: Biotech-Chem Library
CM1-1E07
Phone: 308-4498

jan.delaval@uspto.gov

Search Notes

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

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=> fil reg
FILE 'REGISTRY' ENTERED AT 11:13:35 ON 05 JUN 2003
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STRUCTURE FILE UPDATES:    4 JUN 2003  HIGHEST RN 525536-93-0
DICTIONARY FILE UPDATES:   4 JUN 2003  HIGHEST RN 525536-93-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L5              STR
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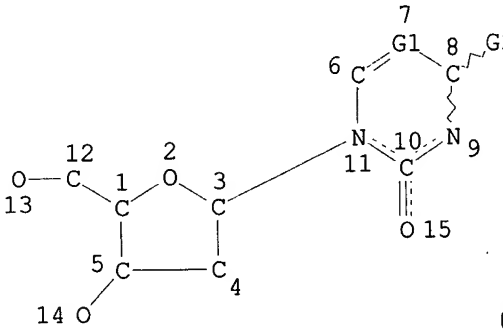
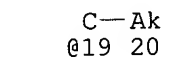
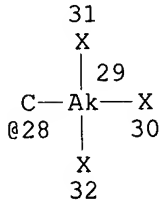
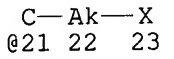


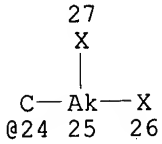


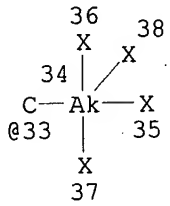


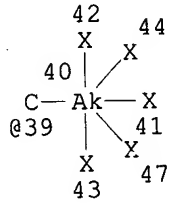


O @48

N @49





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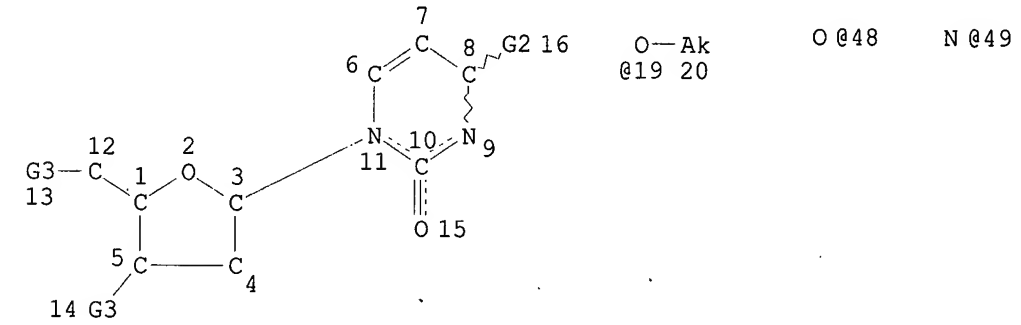
VAR G1=C/17/19/21/24/28/33/39
VAR G2=48/49
NODE ATTRIBUTES:
NSPEC   IS RC     AT  49
CONNECT IS M1  RC AT   4
CONNECT IS M1  RC AT  13
CONNECT IS M1  RC AT  14
CONNECT IS M1  RC AT  40
CONNECT IS M1  RC AT  49
```

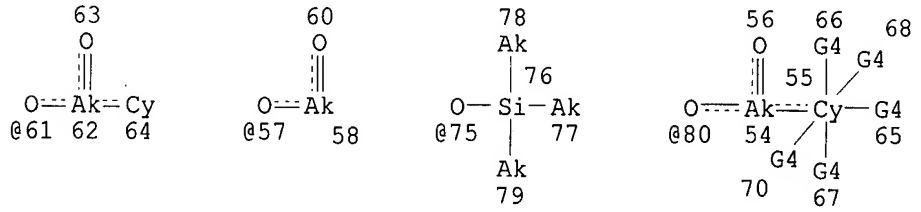
Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE
L7 69658 SEA FILE=REGISTRY CSS FUL L5
L14 STR

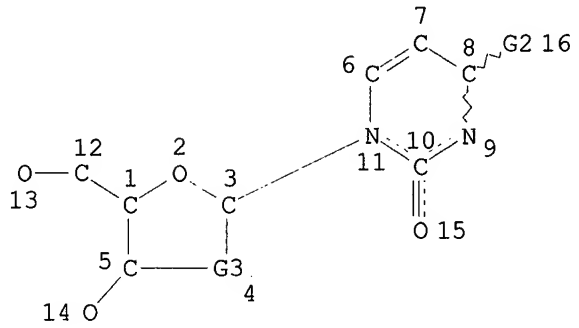


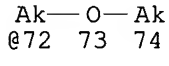


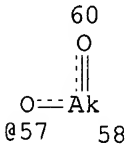
VAR G2=48/49
VAR G3=OH/57/61/80/75
VAR G4=H/AK/X/19
NODE ATTRIBUTES:
NSPEC IS RC AT 49
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 7
CONNECT IS M1 RC AT 49
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

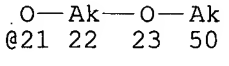
GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 41

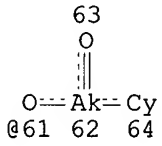
STEREO ATTRIBUTES: NONE
L17 STR

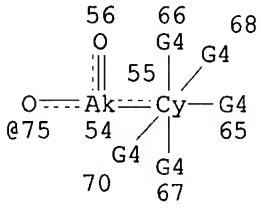








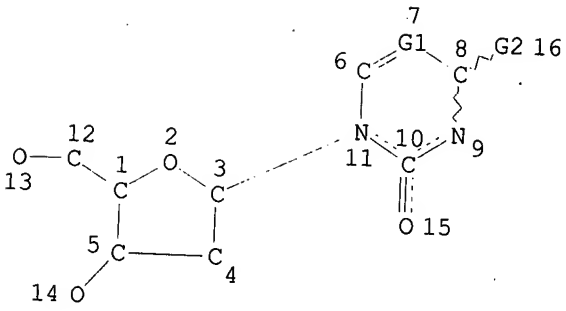




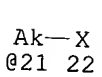
VAR G1=X/OH/AK/CN/19/21/72/57/61/75
VAR G2=48/49
VAR G3=C/17
VAR G4=H/AK/X/19
NODE ATTRIBUTES:
NSPEC IS RC AT 49
CONNECT IS M1 RC AT 7
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 49
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

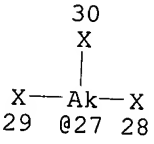
GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 45

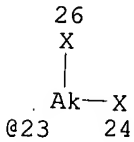
STEREO ATTRIBUTES: NONE
L18 63853 SEA FILE=REGISTRY SUB=L7 CSS FUL L17
L19 63849 SEA FILE=REGISTRY ABB=ON PLU=ON L18/COM
L20 5426 SEA FILE=REGISTRY SUB=L19 CSS FUL L14
L21 5421 SEA FILE=REGISTRY ABB=ON PLU=ON L20/COM
L22 STR

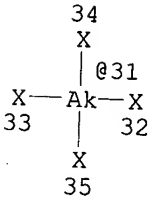


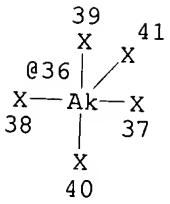
O @17 N @18 C—G3 @19 20











VAR G1=C/19
VAR G2=17/18
VAR G3=X/AK/21/23/27/31/36
NODE ATTRIBUTES:
NSPEC IS RC AT 18
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 18
CONNECT IS M1 RC AT 36
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE
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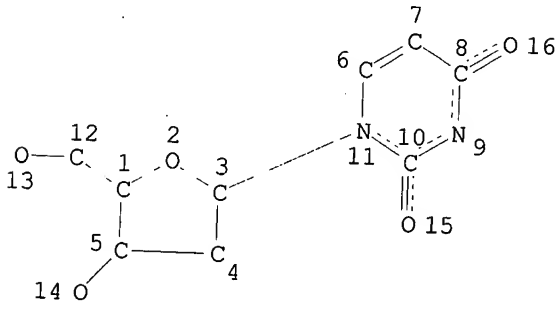
L24 STR



NODE ATTRIBUTES:
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 7
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L27 SCR 2039 OR 2048 OR 2043 OR 2054 OR 2041 OR 2053
L29 2036 SEA FILE=REGISTRY SUB=L23 CSS FUL L24 NOT L27

100.0% PROCESSED 2046 ITERATIONS 2036 ANSWERS
SEARCH TIME: 00.00.01

=> d sta que 141
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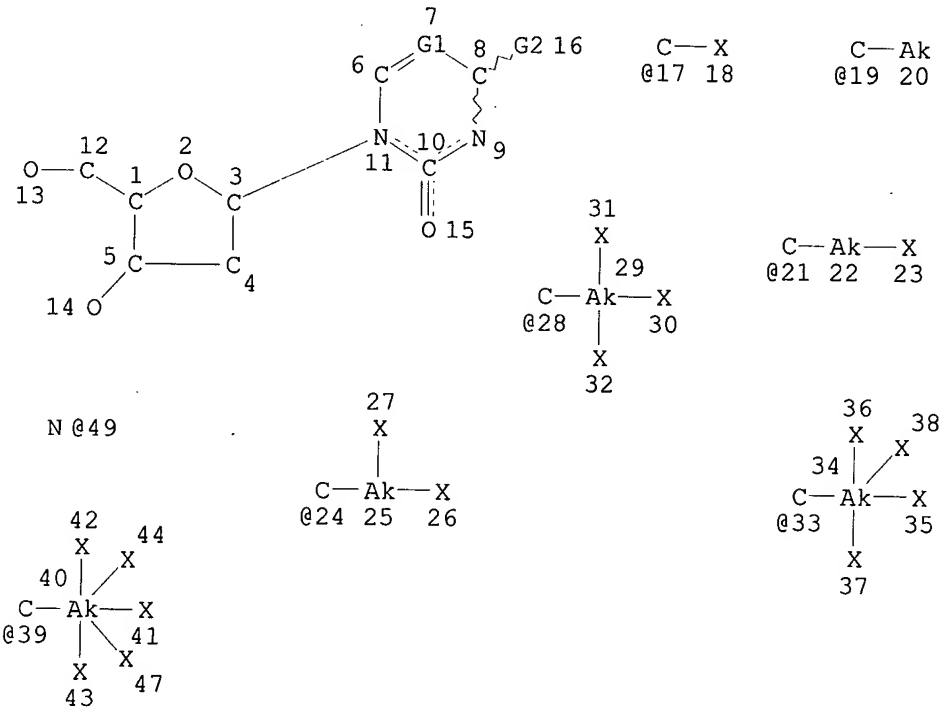
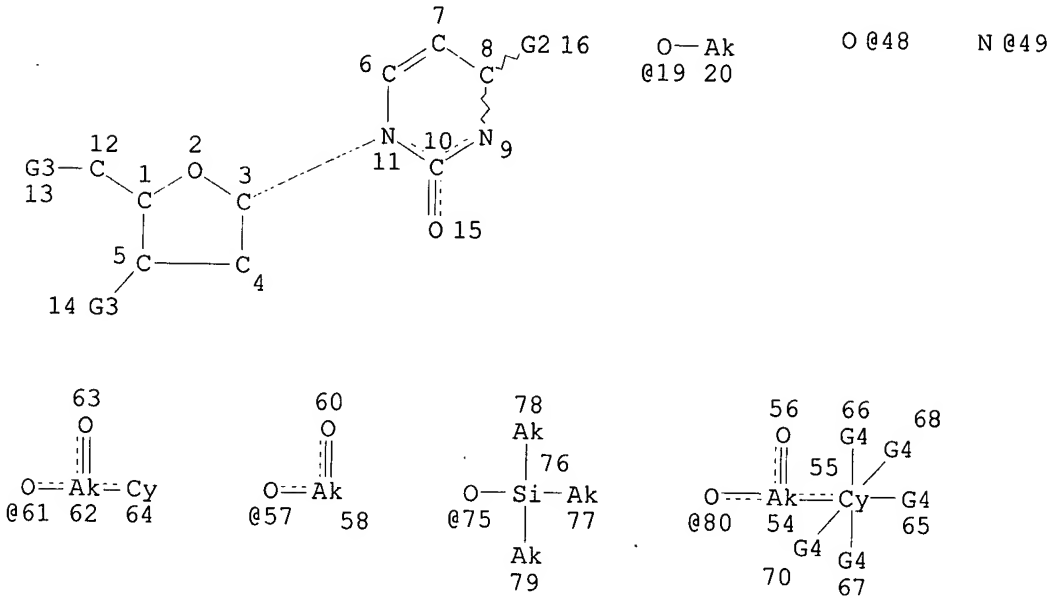


VAR G1=C/17/19/21/24/28/33/39
VAR G2=48/49
NODE ATTRIBUTES:
NSPEC IS RC AT 49
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 40
CONNECT IS M1 RC AT 49
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

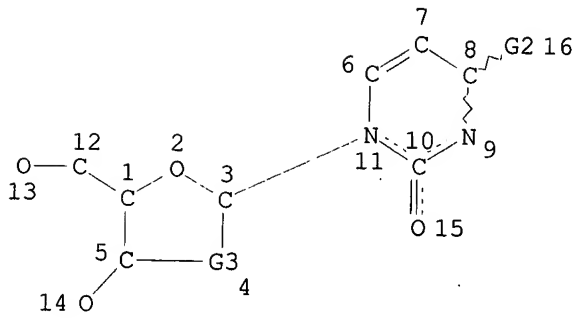
L7 69658 SEA FILE=REGISTRY CSS FUL L5
L14 STR

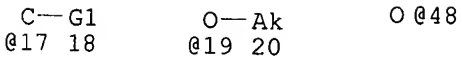


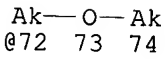
VAR G2=48/49
VAR G3=OH/57/61/80/75
VAR G4=H/AK/X/19
NODE ATTRIBUTES:
NSPEC IS RC AT 49
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 7
CONNECT IS M1 RC AT 49
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

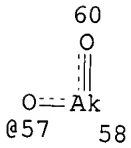
GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 41

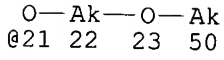
STEREO ATTRIBUTES: NONE
L17 STR

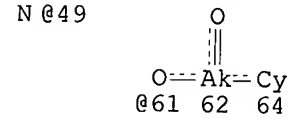


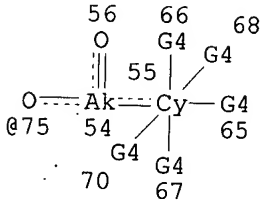








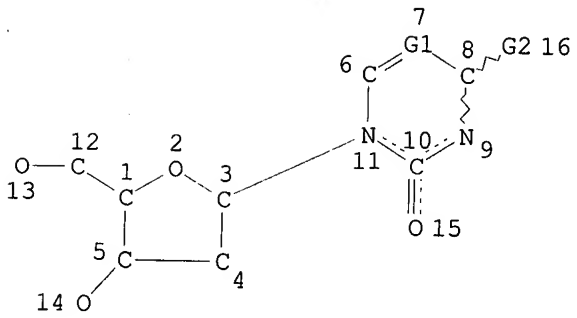




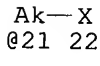
VAR G1=X/OH/AK/CN/19/21/72/57/61/75
VAR G2=48/49
VAR G3=C/17
VAR G4=H/AK/X/19
NODE ATTRIBUTES:
NSPEC IS RC AT 49
CONNECT IS M1 RC AT 7
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 49
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

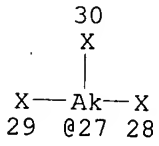
GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 45

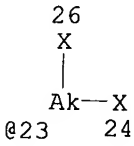
STEREO ATTRIBUTES: NONE
L18 63853 SEA FILE=REGISTRY SUB=L7 CSS FUL L17
L19 63849 SEA FILE=REGISTRY ABB=ON PLU=ON L18/COM
L20 5426 SEA FILE=REGISTRY SUB=L19 CSS FUL L14
L21 5421 SEA FILE=REGISTRY ABB=ON PLU=ON L20/COM
L22 STR

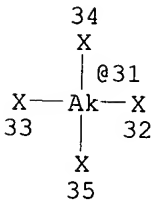


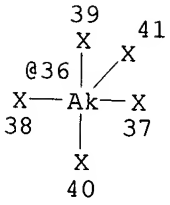
O @17 N @18 C—G3 @19 20











VAR G1=C/19
VAR G2=17/18
VAR G3=X/AK/21/23/27/31/36
NODE ATTRIBUTES:
NSPEC IS RC AT 18
CONNECT IS M1 RC AT 4
CONNECT IS M1 RC AT 13
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 18
CONNECT IS M1 RC AT 36
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4 11
NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE
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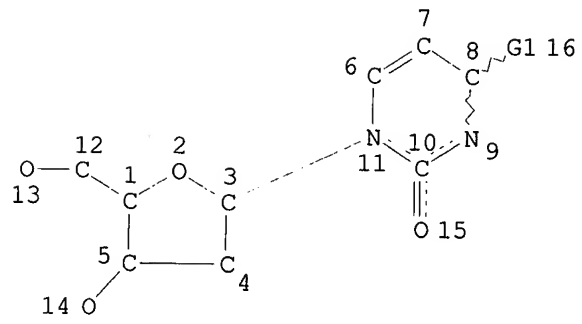
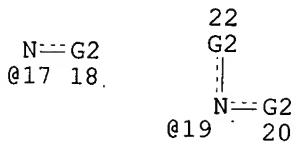
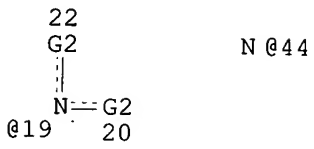
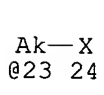
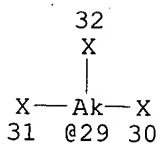
L30 STR

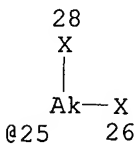


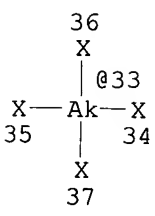


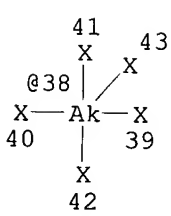










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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
RSPEC   4  11
NUMBER OF NODES IS  42

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L40              SCR 2039 OR 2048 OR 2043 OR 2053
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100.0% PROCESSED    885 ITERATIONS                    885 ANSWERS
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L43           165 S L38 NOT L41

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L64           5 S L54-L63 AND L46
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FILE COVERS 1907 - 5 Jun 2003  VOL 138 ISS 23
FILE LAST UPDATED: 4 Jun 2003  (20030604/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L74  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2003 ACS
AN   2003:299012  HCAPLUS
DN   138:304469
TI   Method for preparation of cytidine nucleoside derivative
IN   Tsuchiya, Katsutoshi; Komatsu, Hironori
PA   Mitsui Chemicals Inc., Japan
SO   Jpn. Kokai Tokkyo Koho, 8 pp.
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CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H019-073
ICS A61P031-12; A61P035-00; A61K031-7072
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003113197	A2	20030418	JP 2001-310880	20011009
PRAI	JP 2001-310880		20011009		

OS CASREACT 138:304469
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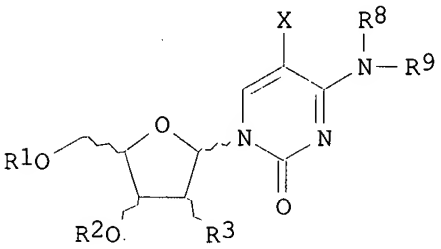

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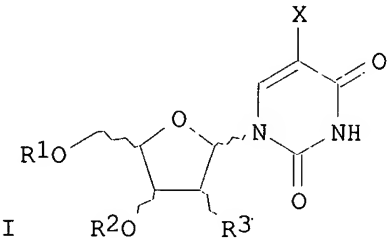

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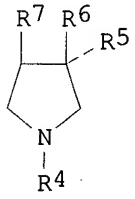

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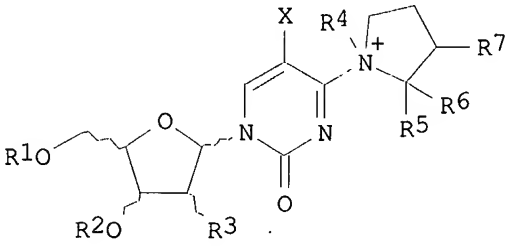


IV

AB An efficient process for prepn. of cytidine deriv. is provided which resolves faults in prior art, e.g. a process by prepn. of intermediate 4-(1,2,4-triazol-1-yl)pyrimidin-2-(1H)-one deriv. using toxic phosphorus oxychloride and expensive 2,4,6-triisopropylbenzenesulfonyl chloride followed by amination. Cytidine nucleoside derivs. [I; X = (un)substituted C1-4 alkyl, C2-4 alkenyl, C1-4 haloalkyl; R1, R2 = H, (un)substituted C1-6 alkyl, C5-8 cycloalkyl, (un)substituted benzyl, C1-10 aliph. acyl, (un)substituted arom. acyl, C1-10 aliph. sulfonyl, (un)substituted arom. sulfonyl, (un)substituted silyl; R3 = H, halo, C1-4 alkyl, cyano, alkenyl, alkynyl, (un)substituted OH; R8, R9 = H, (un)substituted C1-6 alkyl, C5-8 cycloalkyl, C2-5 alkenyl; or NR8R9 = pyrrolidino, piperidino, azepan-1-yl, 4-oxopiperidino] are prepd. by reaction of uridine derivs. (II; X, R1-R3 = same as above) with a dehydrating agent and a pyrrolidine deriv. [III; R4 = C1-3 alkyl; R5-R7 = H, each (un)substituted C1-4 alkyl or OH; or R5 and R6 together represent oxo] in the presence of a base followed by amination with NH3 or primary or secondary amine of formula HNR8R9 (R8, R9 = same as above). The intermediates are presumably cytidine quaternary ammonium salts (IV; R1 -R7, X = same as above) which undergo amination with NH3 or primary or secondary amines. Cytidine derivs. are useful as drugs or agrochems. such as anticancer agents and antiviral agents or intermediates for antisense DNA. Thus, 1.25 mL triethylamine and 0.88 mL N-methylpyrrolidine were added to a soln. of 2.0 g 3',5'-di-O-(4-chlorobenzoyl)thymidine in 5 mL 1,3-dimethylimidazolidin-2-one (DMI), cooled to 0.degree., treated dropwise with a soln. of 1.54 g p-toluenesulfonyl chloride in 2 mL DMI,

followed by rinsing the reagent into the reaction mixt. 1 mL DMI, and the reaction mixt. was stirred at .ltoreq.10.degree. doe 3 h, cooled to 0.degree., treated dropwise with 8 mL 28% aq. NH3 at .ltoreq.10.degree., stirred at .ltoreq.3.degree. for 3 h, mixed with 10 mL H2O, and extd. twice with EtOAc (20 mL and 10 mL). The ext. was washed three-times with 10 mL H2O, concd., stirred with 20 mL MeOH for 2 h under ice-cooling, and filtered to give, after drying the filtered solid at 40.degree. under reduced pressure 1.78 g 3',5'-di-O-(4-chlorobenzoyl)-5-methyldeoxycytidine (78% yield).

ST cytidine nucleoside prepn intermediate antisense DNA; chlorobenzoylmethyldeoxycytidine prepn antiviral anticancer; uridine condensation pyrrolidine; amination ammonolysis cytidine quaternary ammonium salt

IT Acid halides
RL: RGT (Reagent); RACT (Reactant or reagent)
(acid chlorides, dehydrating agents; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Dehydration reaction
(agents; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Anhydrides
RL: RGT (Reagent); RACT (Reactant or reagent)
(dehydrating agents; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Antitumor agents
Antiviral agents
(prepn. of cytidine nucleoside deriv. as anticancer or antiviral agent or intermediate for antisense DNA)

IT Antisense DNA
RL: PNU (Preparation, unclassified); PREP (Preparation)
(prepn. of cytidine nucleoside deriv. as anticancer or antiviral agent or intermediate for antisense DNA)

IT Amination
Ammonolysis
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Deoxyribonucleosides
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(primary; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(secondary; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT 98-59-9, p-Toluenesulfonyl chloride
RL: RGT (Reagent); RACT (Reactant or reagent)
(dehydrating agents; prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT 110-89-4, Piperidine, reactions 111-49-9, Azepane 120-94-5, N-Methylpyrrolidine 123-75-1, Pyrrolidine, reactions **4449-32-5** 7664-41-7, Ammonia, reactions 41661-47-6, 4-Oxopiperidine

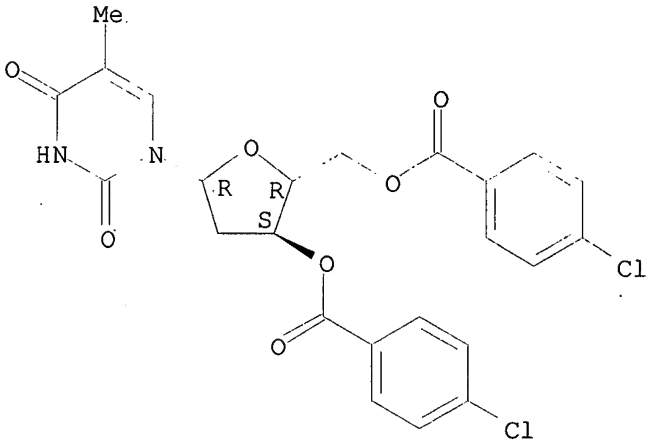
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT **367511-34-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

IT **4449-32-5**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

RN 4449-32-5 HCAPLUS
CN Thymidine, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

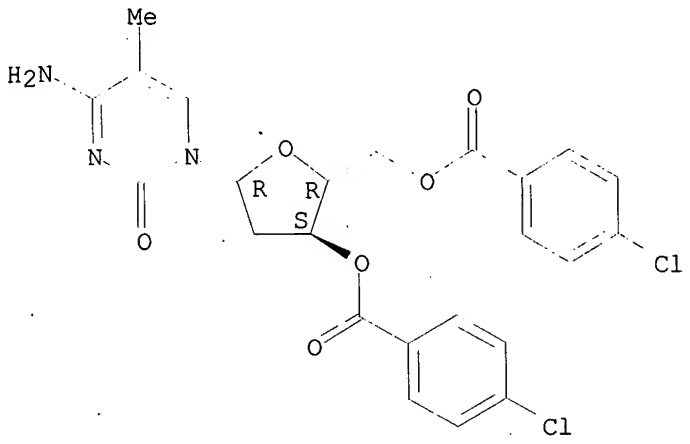
Absolute stereochemistry.



IT **367511-34-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of cytidine nucleoside deriv. by reaction of uridine deriv. with pyrrolidine deriv. and dehydrating agent followed by ammonolysis or amination)

RN 367511-34-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L74 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:780929 HCAPLUS
DN 135:318660
TI Process for the preparation of cytidine derivatives from uridine derivatives
IN **Morizane, Kunihiko; Tanikawa, Hiroharu; Kouno, Toshiyuki; Komatsu, Hironori**; Fukazawa, Nobuyuki
PA **Mitsui** Chemicals, Inc., Japan
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C07H019-067
ICS C07H019-073
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1
FAN.CNT 1

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PI	WO 2001079248	A1	20011025	WO 2001-JP3191	20010413 <--
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	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	JP 2001354692	A2	20011225	JP 2001-115769	20010413 <--
	EP 1186612	A1	20020313	EP 2001-921831	20010413 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 2001005939	A	20020326	BR 2001-5939	20010413 <--
	US 2003032797	A1	20030213	US 2002-9805	20020306 <--
PRAI	JP 2000-112361	A	20000413 <--		
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OS CASREACT 135:318660; MARPAT 135:318660
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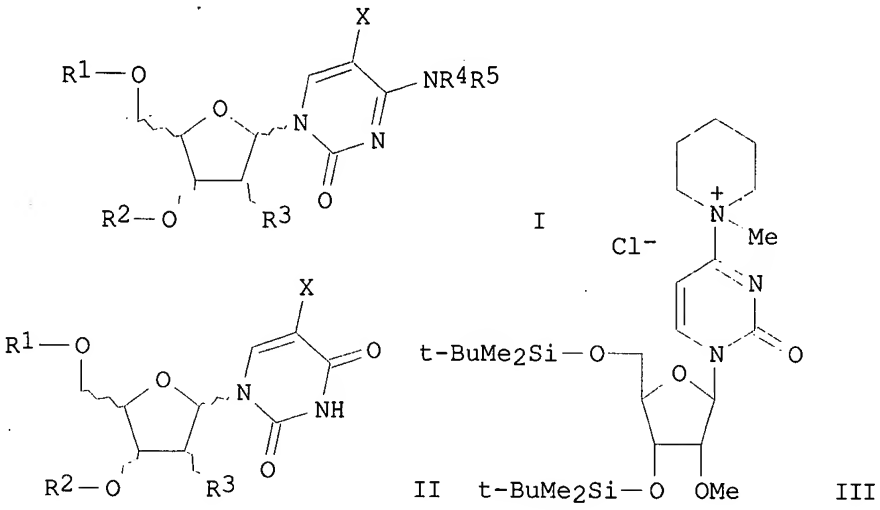


AB Cytidine derivs. (I; X = H, halo, C1-4 alkyl, C1-4 haloalkyl, C2-4 alkenyl; R1, R2 = H, hydroxy-protecting group; R3 = H, halo, HO, C1-4 alkyl, cyano, alkenyl, alkynyl, C1-4 alkoxy, HO substituted by a hydros-protecting group; R4 , R5 = H, C1-4 alkyl, C5-8 cycloalkyl, C1-4 haloalkyl, C2-4 alkenyl; or R4 and R5 are liked together to form a ring) are prepd. by condensation of uridine derivs. (II; X, R1, R2, R3 = same as above) with a tertiary **amine** and a dehydrating agent and then **amination** of the intermediate quaternary ammonium salt with NH3 or primary or secondary **amine** of formula HDR4R5 (R4, R5 = same as above). An efficient synthesis of cytidine derivs. is attained by using a tertiary **amine** to thereby overcome the disadvantages of the prior art which uses 1,2,4-triazole and requires long reaction time and extn. step. This process shortens reaction time and simplifies procedures and is suitable for large scale prodn. of cytidine derivs. which are useful as anticancer agents and antiviral agents (no data). Thus, 0.23 mL 1-methylpiperidine and 0.45 mL Et3N were added to a soln. of 750 mg 3',5'-O-bis(tert-butyldimethylsilyl)-2'-O-methyluridine in 10 mL MeCN, cooled, treated dropwise with a soln. of 614 mg p-toluenesulfonyl chloride in 5 mL MeCN under ice-cooling, and stirred for 1 h to give an soln. of an intermediate (III). To the latter reaction soln. was added dropwise 3.5 mL 28% aq. NH3 and stirred for 2 h to give 73% 3',5'-O-bis(tert-butyldimethylsilyl)-2'-O-methylcytidine.

ST cytidine deriv prepn antiviral anticancer; **amination** cytidine quaternary ammonium salt; tertiary **amine** condensation uridine

IT **Amination**
(cytidine derivs. by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**
)

IT Antitumor agents
Antiviral agents
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

IT **Amines**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(primary; prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

IT **Amines**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(secondary; prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

IT 65-71-4, Thymine 121-44-8, Triethylamine, reactions 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 626-67-5, 1-Methylpiperidine 1122-58-3, 4-Dimethylaminopyridine **2140-76-3**, 2'-O-Methyluridine 3601-90-9, 3,5-O-Bis(4-chlorobenzoyl)-2-deoxy-D-ribofuranosyl chloride 7664-41-7, Ammonia, reactions 18162-48-6, tert-Butyldimethylsilyl chloride **367511-26-0**, 3',5'-O-Bis(4-chlorobenzoyl)-2'-O-methyluridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

IT **4449-32-5P**, 3,5-O-Bis(4-chlorobenzoyl)thymidine **367511-34-0P 367511-37-3P**, 3',5'-O-Bis(tert-butyldimethylsilyl)-2'-O-methyluridine **367511-40-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

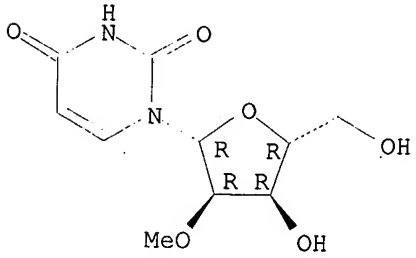
IT **5241-10-1P 367511-29-3P 367511-42-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) American Chemical Society; Database CAPLUS on STN
(2) American Chemical Society; Database CAPLUS on STN
(3) American Chemical Society; Database CAPLUS on STN
(4) Mitsui Chemicals Ltd; JP 2000327693 A 2000 HCAPLUS
(5) Tokyo Yakka University; JP 06329560 A 1994 HCAPLUS
(6) Yamasa Corporation; JP 01143892 A 1989 HCAPLUS

IT **2140-76-3**, 2'-O-Methyluridine **367511-26-0**, 3',5'-O-Bis(4-chlorobenzoyl)-2'-O-methyluridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)

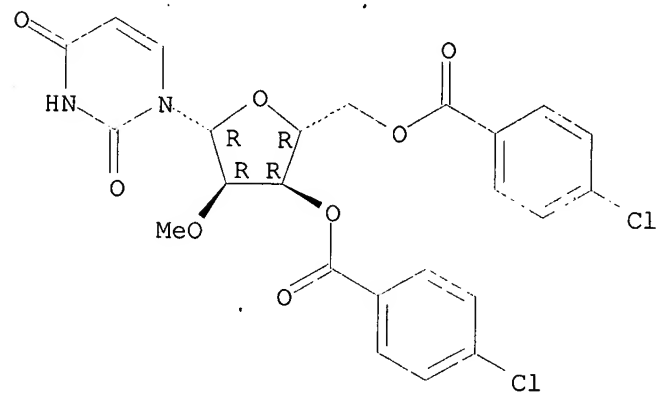
RN 2140-76-3 HCAPLUS
CN Uridine, 2'-O-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



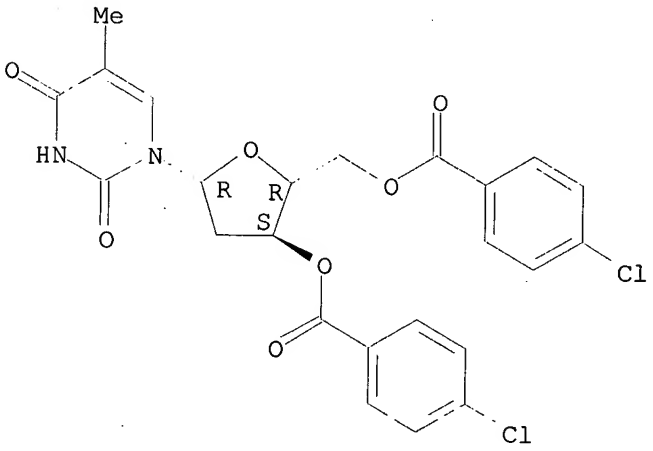
RN 367511-26-0 HCAPLUS
CN Uridine, 2'-O-methyl-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



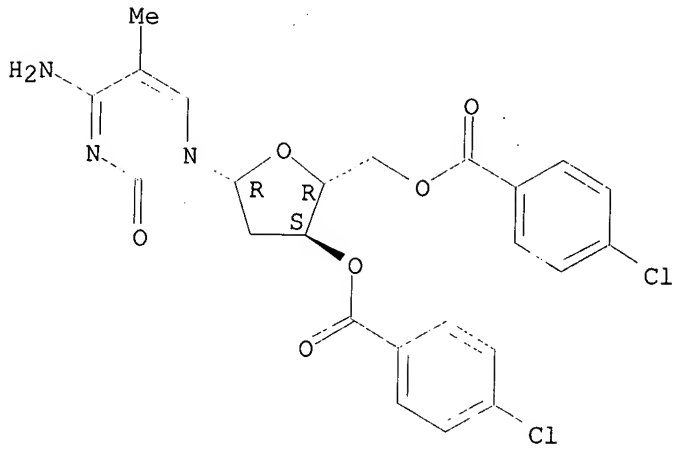
IT **4449-32-5P**, 3,5-O-Bis(4-chlorobenzoyl)thymidine
367511-34-0P 367511-37-3P, 3',5'-O-Bis(tert-butyldimethylsilyl)-2'-O-methyluridine **367511-40-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)
RN 4449-32-5 HCAPLUS
CN Thymidine, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



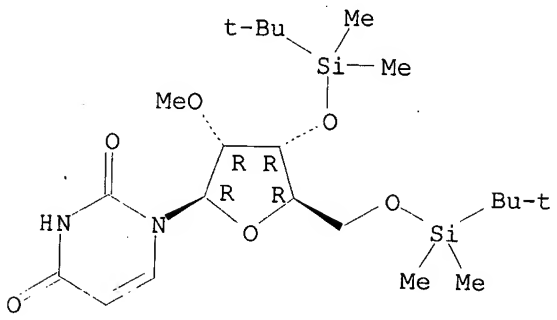
RN 367511-34-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



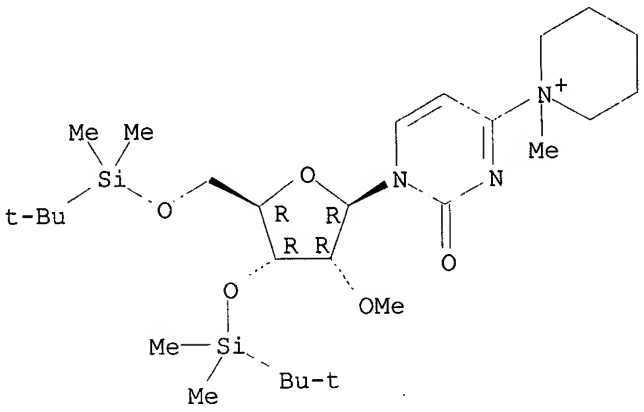
RN 367511-37-3 HCAPLUS
CN Uridine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-2'-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 367511-40-8 HCAPLUS
CN Piperidinium, 1-[1-[3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-2-O-methyl-.beta.-D-ribofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

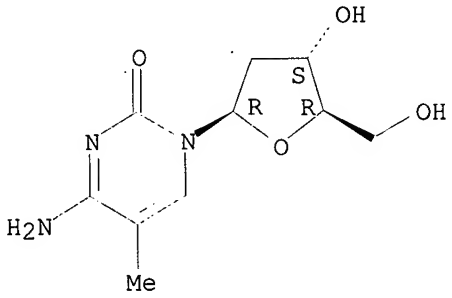
Absolute stereochemistry.



● Cl⁻

IT **5241-10-1P 367511-29-3P 367511-42-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of cytidine derivs. as anticancer and antiviral agents by condensation of tertiary **amine** with uridine derivs. and **amination** of intermediate quaternary ammonium salt with primary **amines** or secondary **amines**)
RN 5241-10-1 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, monohydrochloride (8CI, 9CI) (CA INDEX NAME)

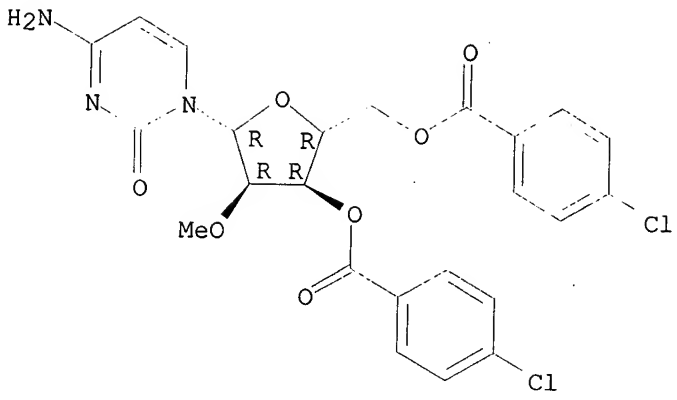
Absolute stereochemistry.



● HCl

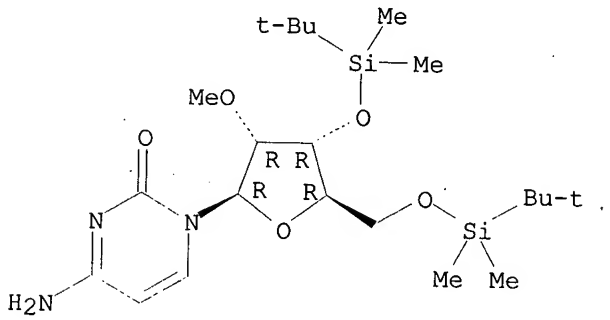
RN 367511-29-3 HCAPLUS
CN Cytidine, 2'-O-methyl-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 367511-42-0 HCAPLUS
CN Cytidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-2'-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L74 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:675221 HCAPLUS
DN 136:6266
TI Large-scale manufacturing of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymatic process
AU **Komatsu, Hironori**; Awano, Hirokazu; **Tanikawa, Hiroharu**; Itou, Kiyoshi; Ikeda, Ichirou
CS Chemical Synthesis Laboratory, **Mitsui** Chemicals Inc., Mobara, 297-0017, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2001), 20(4-7), 1291-1293
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
CC 33-9 (Carbohydrates)
Section cross-reference(s): 7, 9
AB A chem. synthesis of 2-deoxyribose-1-phosphate and its enzymic conversion into purine 2'-deoxynucleosides (dNus) are shown. Besides the chemo-enzymic process for purine dNus, a modified process for practical dC prepn. is also established. Consequently, a series of practical manufg. processes of all four dNus have been realized via novel strategies.
ST deoxynucleoside manufg chemoenzymic coupling nucleobase deoxyribosephosphate
IT Nucleosides, preparation
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); SPN

(Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(deoxynucleosides; large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

IT Coupling reaction
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

IT 958-09-8P, 2'-Deoxyadenosine 961-07-9P, 2'-Deoxyguanosine **3992-42-5P**, 2'-Deoxycytidine hydrochloride
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

IT 9030-21-1, Purine nucleoside phosphorylase
RL: CAT (Catalyst use); USES (Uses)
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

IT 73-24-5, Adenine, reactions 73-40-5, Guanine 626-67-5, N-Methylpiperidine 10457-14-4, Bis(trimethylsilyl)Uracil 21740-23-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

IT **5173-91-1P** 17039-17-7P **127970-42-7P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

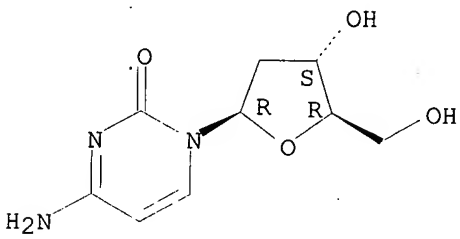
(1) Friedkin, M; J Biol Chem 1950, V184, P449 HCAPLUS
(2) Friedkin, M; J Biol Chem 1950, V184, P461
(3) Kawakami, H; Chem Lett 1989, P235 HCAPLUS
(4) Reese, C; Tetrahedron Lett 1980, V21, P2265 HCAPLUS

IT **3992-42-5P**, 2'-Deoxycytidine hydrochloride
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

RN 3992-42-5 HCAPLUS

CN Cytidine, 2'-deoxy-, monohydrochloride (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



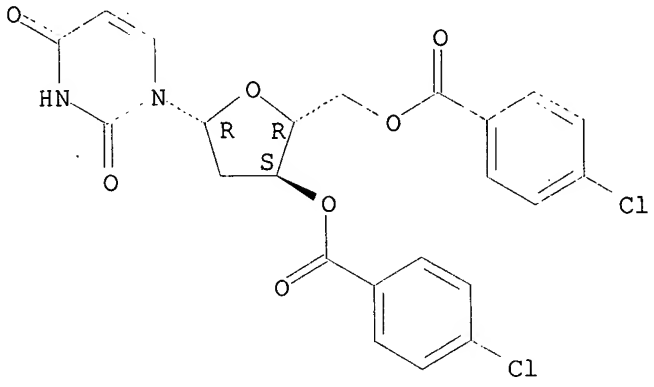
● HCl

IT **5173-91-1P 127970-42-7P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(large-scale manufg. of all four 2'-deoxynucleosides via novel strategies including a chemo-enzymic process)

RN 5173-91-1 HCAPLUS

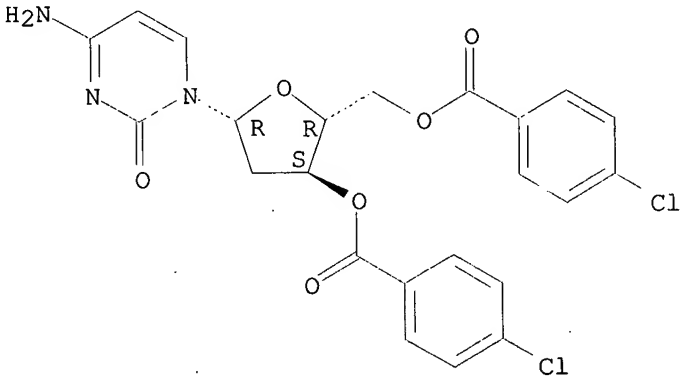
CN Uridine, 2'-deoxy-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

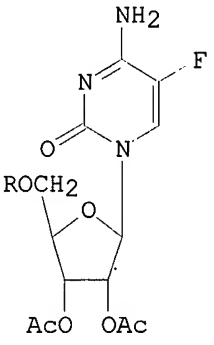


RN 127970-42-7 HCAPLUS
CN Cytidine, 2'-deoxy-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

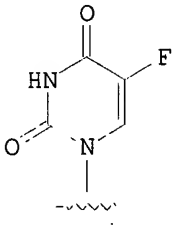
Absolute stereochemistry.



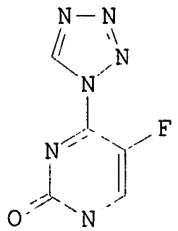
L74 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 1990:497957 HCAPLUS
DN 113:97957
TI Transformation of uridine derivatives into cytidines via selective **amination**
AU Krug, A.; Schmidt, S.; Lekhschas, J.; Lemke, K.; Cech, D.
CS Sekt. Chem., Humboldt-Univ. Berlin, Berlin, DDR-1040, Ger. Dem. Rep.
SO Journal fuer Praktische Chemie (Leipzig) (**1989**), 331(5), 835-42
CODEN: JPCEAO; ISSN: 0021-8383
DT Journal
LA German
CC 33-9 (Carbohydrates)
OS CASREACT 113:97957
GI



I



II



III

AB 5-Fluorocytidines I [R = Ac, P(O)(OH)2] were prepd. via **amination** of uridine II. 5-Substituted 4-tetrazolopyrimidinones III are key intermediates in the procedure. The method is extended to other fluorinated starting materials, e.g. fluorinated uridine dinucleotide or 2'-deoxy-2'-fluorouridine. The fluoroinated starting materials were prepd. by fluorination with F.

ST fluorocytidine; cytidine fluoro; **amination** fluorouridine; uridine fluoro **amination**

IT **Amination**
(regioselective, of fluorouridines)

IT **58-96-8**, Uridine 58-97-9, 5'-Uridylic acid, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(fluorination of)

IT **128963-07-5P 128963-08-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and aminolysis of)

IT **128963-10-0P** 128985-05-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)

IT 128963-05-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and fluorination of)

IT **55474-11-8P** 67550-04-3P 128963-06-4P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and regioselective **amination** of)

IT **10212-20-1P** 31535-27-0P 128985-06-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **2341-22-2P**, 5-Fluorocytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from fluorouridine)

IT **128963-09-7**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with chlorophenyl phosphorodichloridate and tetrazole)

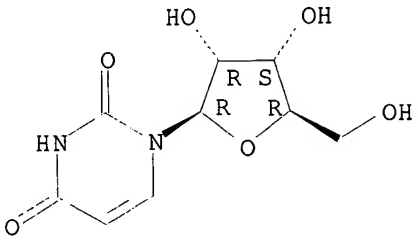
IT 362-43-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlorophenyl phosphoroditriazolide)

IT 62420-37-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isopropylideneuridine)

IT 288-94-8, 1H-Tetrazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nucleosides and chlorophenyl phosphorodichloridate)

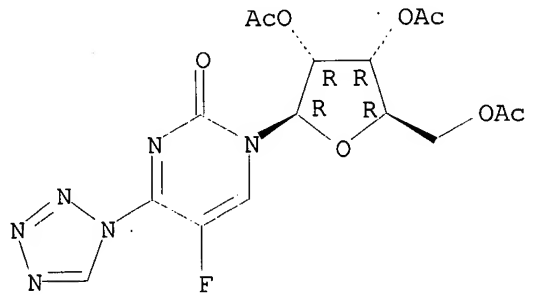
IT 772-79-2, 4-Chlorophenyl phosphorodichloridate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tetrazole and nucleosides)
IT **58-96-8**, Uridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(fluorination of)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



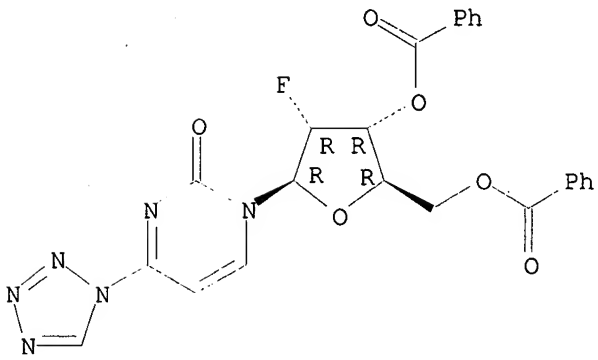
IT **128963-07-5P 128963-08-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and aminolysis of)
RN 128963-07-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 5-fluoro-4-(1H-tetrazol-1-yl)-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



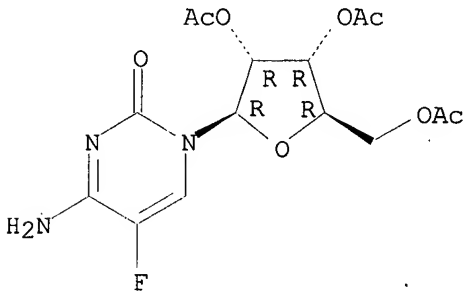
RN 128963-08-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(3,5-di-O-benzoyl-2-deoxy-2-fluoro-.beta.-D-ribofuranosyl)-4-(1H-tetrazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



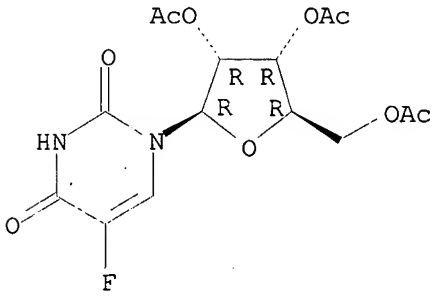
IT **128963-10-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)
RN 128963-10-0 HCAPLUS
CN Cytidine, 5-fluoro-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **55474-11-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and regioselective **amination** of)
RN 55474-11-8 HCAPLUS
CN Uridine, 5-fluoro-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

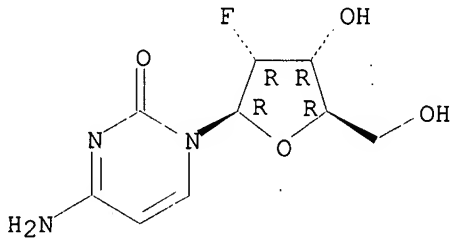
Absolute stereochemistry.



IT **10212-20-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

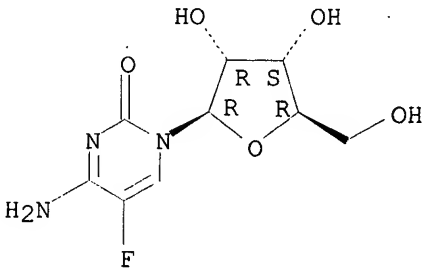
RN 10212-20-1 HCAPLUS
CN Cytidine, 2'-deoxy-2'-fluoro- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



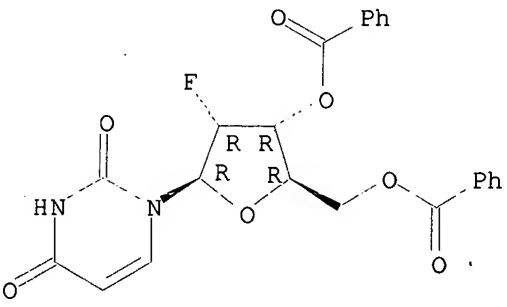
IT **2341-22-2P**, 5-Fluorocytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from fluorouridine)
RN 2341-22-2 HCAPLUS
CN Cytidine, 5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



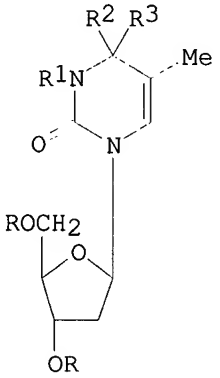
IT **128963-09-7**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with chlorophenyl phosphorodichloridate and tetrazole)
RN 128963-09-7 HCAPLUS
CN Uridine, 2'-deoxy-2'-fluoro-, 3',5'-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L74 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 1982:104663 HCAPLUS
DN 96:104663
TI Chemical conversion of thymidine into 5-methyl-2'-deoxycytidine
AU Sung, Wing L.

CS Div. Biol. Sci., Natl. Res. Counc. Canada, Ottawa, CA, K1A 0R6, USA
SO Journal of the Chemical Society, Chemical Communications (**1981**), (20), 1089
CODEN: JCCCAT; ISSN: 0022-4936
DT Journal
LA English
CC 33-9 (Carbohydrates)
Section cross-reference(s): 28
GI



I

AB Treating thymidine derivs. I (R = SiMe2CMe3, COMe, R1 = H, R2R3 = O) with 3.0 mol equiv 1,2,4-triazole and 1.5 mol equiv 4-ClC6H4OPOCl2 in pyridine at room temp. 3 days gave 72-73% triazolylpyrimidinones I (R1R2 = bond, R3 = 1,2,4-triazol-1-yl) (II). Treating II with aq. NH3 in dioxane at room temp. 1 h gave 85-89% deoxycytidines I (R = SiMe2CMe3, OH, R1R2 = bond, R3 = NH2).
ST methyldeoxycytidine; deoxycytidine methyl; cytidine deoxy methyl; thymidine condensation triazole **amination**
IT Condensation reaction
(of thymidine derivs. with triazole, in prepn. of deoxycytidine derivs.)
IT **Amination**
(of triazolyl nucleosides, methyldeoxycytidines by)
IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of methyldeoxycytidine, from diacetylthymidine via triazolylpyrimidinone nucleoside)
IT 772-79-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of thymidine derivs. with triazole in presence of)
IT 288-88-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with thymidine derivs., in prepn. of methyldeoxycytidine derivs.)
IT **6979-97-1 40733-26-4**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(condensation reaction of, with triazole, in methyldeoxycytidine prepn.)
IT **80991-40-8P 80991-41-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of)
IT **80991-42-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)

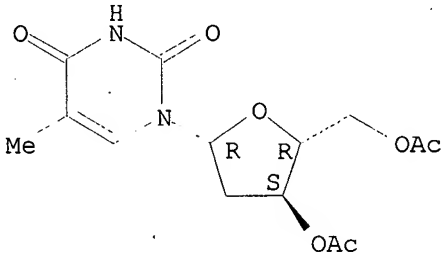
(prepn. of)

IT **838-07-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from diacetylthymidine via triazolylpyrimidone nucleoside)

IT **6979-97-1 40733-26-4**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(condensation reaction of, with triazole, in methyldeoxycytidine prepn.)

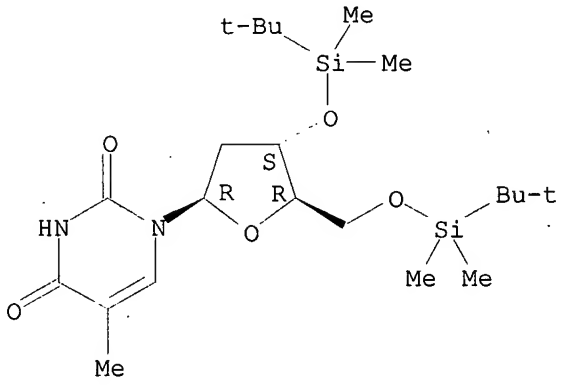
RN 6979-97-1 HCAPLUS
CN Thymidine, 3',5'-diacetate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 40733-26-4 HCAPLUS
CN Thymidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

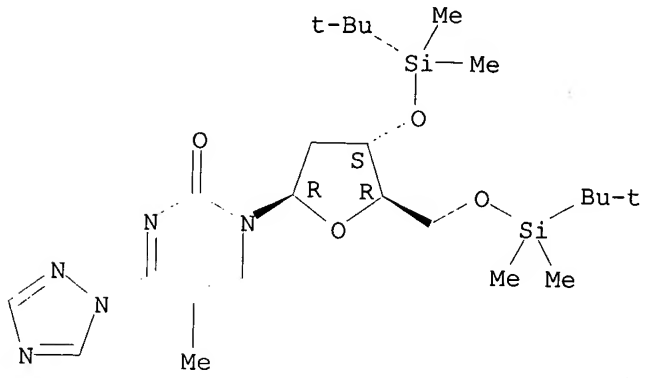
Absolute stereochemistry.



IT **80991-40-8P 80991-41-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of)

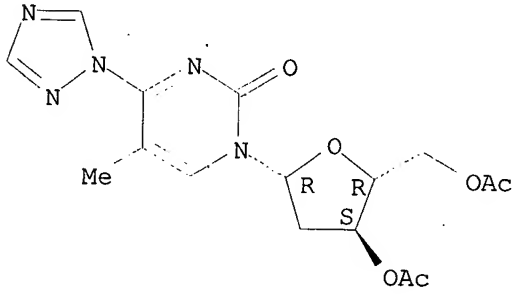
RN 80991-40-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-[2-deoxy-3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-erythro-pentofuranosyl]-5-methyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



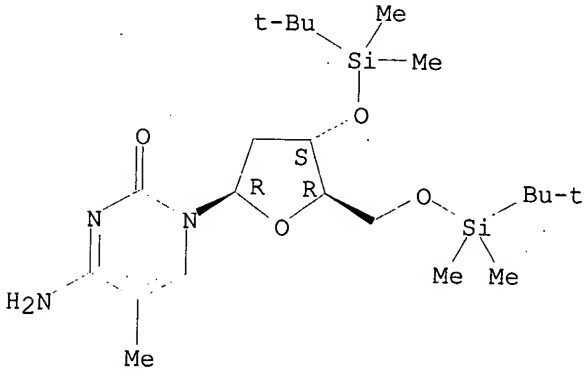
RN 80991-41-9 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(3,5-di-O-acetyl-2-deoxy-.beta.-D-erythro-pentofuranosyl)-5-methyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **80991-42-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 80991-42-0 HCAPLUS
CN Cytidine, 2'-deoxy-3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-5-methyl- (9CI) (CA INDEX NAME)

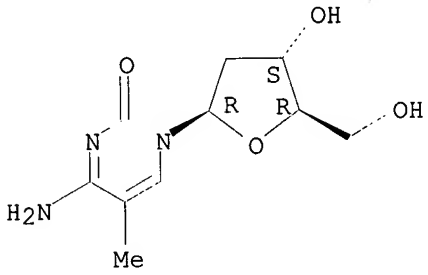
Absolute stereochemistry.



IT **838-07-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from diacetylthymidine via triazolylpyrimidone nucleoside)

RN 838-07-3 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

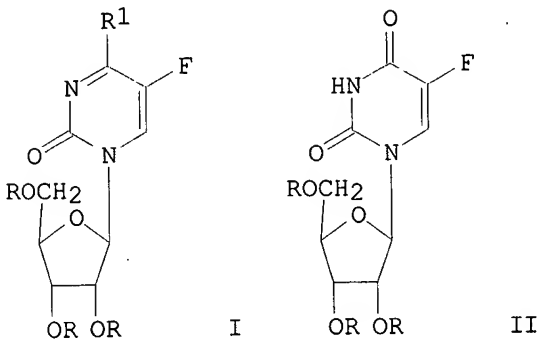
Absolute stereochemistry.



L74 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 1981:551115 HCAPLUS
DN 95:151115
TI 5-Fluorocytidine
PA **Mitsui** Toatsu Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C07H019-06
CC 33-7 (Carbohydrates)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56059794	A2	19810523	JP 1979-135939	19791023 <--
	JP 62023757	B4	19870525		
PRAI	JP 1979-135939		19791023 <--		

GI



AB The title compd. (I, R = H, R1 = NH2) was prepd. by chlorination of the acylfluorouridine II (R = acyl) followed by **amination** of I (R = acyl, R1 = Cl) and subsequent deacylation. Thus, 1.94 g II (R = Ac) in DMF was refluxed with SOCl2, the resulting oil treated with NH3-EtOH for 3.5 h, and the product hydrolyzed to give 1.0 g I (R = H, R1 = NH2).
ST fluorocytidine; cytidine fluoro
IT **55474-11-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(chlorination of)
IT 79343-28-5P

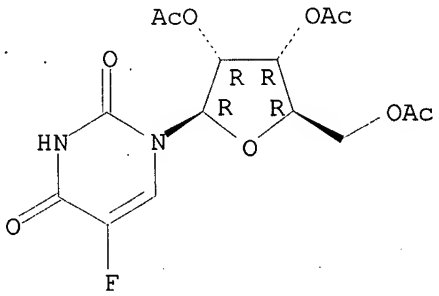
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of)

IT **2341-22-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **55474-11-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(chlorination of)

RN 55474-11-8 HCAPLUS
CN Uridine, 5-fluoro-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

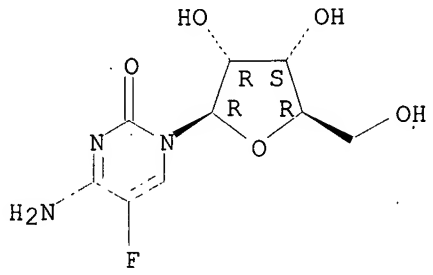
Absolute stereochemistry.



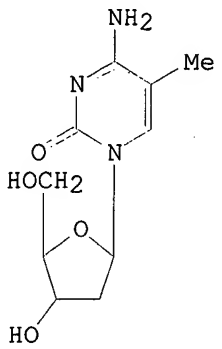
IT **2341-22-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 2341-22-2 HCAPLUS
CN Cytidine, 5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L74 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:198686 HCAPLUS
DN 92:198686
TI 2'-Deoxy-5-methylcytidine. **Amination** of thymidine
AU Vorbrueggen, Helmut; Krolikiewicz, Konrad
CS Schering A.-G., Berlin, 1000/65, Fed. Rep. Ger.
SO Nucl. Acid Chem. (**1978**), Volume 1, 227-9. Editor(s): Townsend, Leroy B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y.
CODEN: 42TBAU
DT Conference
LA English
CC 33-7 (Carbohydrates)
GI



I

AB A mixt. of thymidine, hexamethyldisilazane, HCONH2, and (NH4)2SO4 was autoclaved 72 h at 130-5.degree., and the product was refluxed with MeOH to give after silica column chromatog. 75% deoxymethylcytidine I.

ST deoxymethylcytidine; cytidine deoxy methyl; **amination** thymidine

IT **Amination**
(of thymidine, deoxymethycytidine from)

IT **50-89-5**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(**amination** of, deoxymethylcytidine from)

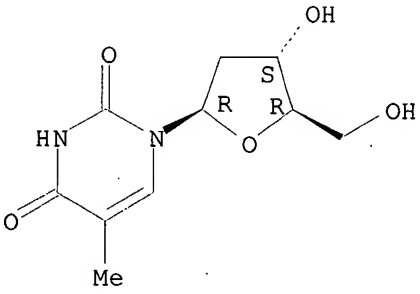
IT **838-07-3P 5241-10-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **50-89-5**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(**amination** of, deoxymethylcytidine from)

RN 50-89-5 HCAPLUS

CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

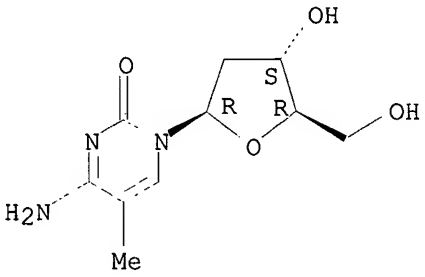


IT **838-07-3P 5241-10-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 838-07-3 HCAPLUS

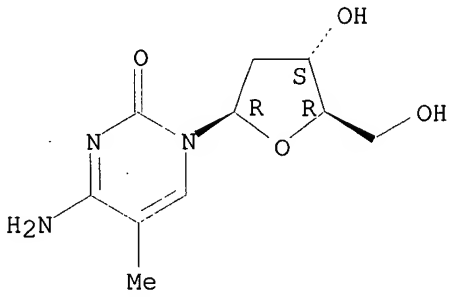
CN Cytidine, 2'-deoxy-5-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 5241-10-1 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, monohydrochloride (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

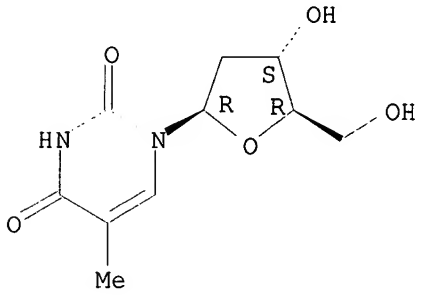


● HCl

L74 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2003 ACS
AN 1979:23542 HCAPLUS
DN 90:23542
TI 2'-Deoxy-5-methylcytidine: **Amination** of thymidine
AU Vorbrueggen, Helmut; Krolikiewicz, Konrad
CS Schering A.-G., Berlin, Fed. Rep. Ger.
SO Nucleic Acid Chem. (**1978**), Volume 1, 227-9. Editor(s): Townsend, Leroy B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y. CODEN: 39GCA6
DT Conference
LA English
CC 33-7 (Carbohydrates)
AB Autoclaving thymidine, (Me3Si)2NH, HCONH2, and (NH4)2SO4 at 130-5.degree. for 72 h gave 75% 2'-deoxy-5-methylcytidine, which was converted to the hydrochloride and recrystd. from EtOH.
ST deoxymethylcytidine; cytidine deoxy methyl; **amination** thymidine
IT **Amination**
(of thymidine, 2'-deoxy-5-methylcytidine from)
IT **50-89-5**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(**amination** of, 2'-deoxy-5-methylcytidine from)
IT **838-07-3P 68696-19-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **50-89-5**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**

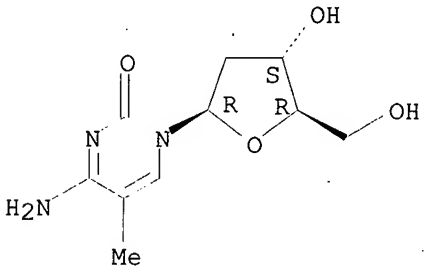
(**amination** of, 2'-deoxy-5-methylcytidine from)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



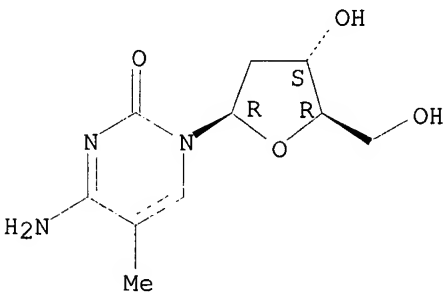
IT **838-07-3P 68696-19-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 838-07-3 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 68696-19-5 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, hydrochloride (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●x HCl

=> d all hitstr tot

L75 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:314958 HCAPLUS
DN 136:340939
TI Preparation of modified nucleosides for treatment of viral infections and abnormal cellular proliferation
IN Stuyver, Lieven; Watanabe, Kyoichi A.
PA Pharmasset Limited, USA
SO PCT Int. Appl., 230 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07H019-00
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1, 7, 10, 63
FAN.CNT 2

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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
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	US 2003087873	A1	20030508	US 2001-45292	20011018	<--
PRAI	US 2000-241488P	P	20001018	<--		
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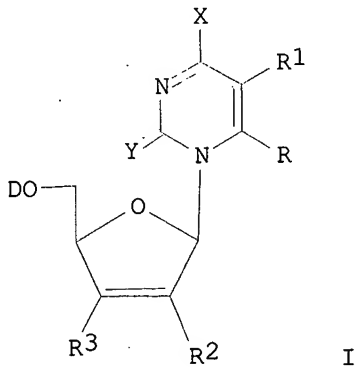
GI



I

AB Modified nucleosides, e.g. I, wherein D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid; X is H, halogen, NH2, substituted **amine**, oxime, OH, alkoxy, SH, thioalkyl; Y is O, S, Se; R and R1 are independently H, alkyl, alkenyl, alkynyl, aryl, alkylaryl, halogen, NH2, substituted **amine**, oxime, hydrazine, OH, alkoxy, SH, thioalkyl, NO2, NO, CH2OH, CH2OH, ester, CONH2, amide, CN; R2 and R3 are independently H, halogen, OH, SH, OMe, SMe, NH2, NHMe,

CH:CH2, CN, CH2NH2, CH2OH, CO2H; were prepd. for treating a Flaviviridae (including BVDV and HCV), Orthomyxoviridae (including Influenza A and B) or Paramyxoviridae (including RSV) infection, or conditions related to abnormal cellular proliferation, in a host, including animals, and esp. humans. This invention also provides an effective process to quantify the viral load, and in particular BVDV, HCV or West Nile Virus load, in a host, using real-time polymerase chain reaction ("TR-PCR"). Addnl., the invention discloses probe mols. that can fluoresce proportionally to the amt. of virus present in a sample. Thus, (1'R,2'S,3'R,4'R)-1-[2,3-dihydroxy-4-(hydroxymethyl)cyclopentan-1-yl]-5-fluorocytosine was prepd. and tested in vitro as antiviral and antitumor agent.

ST cytotoxicity nucleoside prepn antiviral antitumor human antiinfluenza; polymerase chain reaction nucleoside prepn antiviral antitumor human antiinfluenza; nucleoside prepn antiviral antitumor human antiinfluenza Orthomyxoviridae Paramyxoviridae Flaviviridae

IT Antitumor agents
Antiviral agents
Cytotoxicity
Human
PCR (polymerase chain reaction)
West Nile virus
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT Nucleosides, preparation
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT Bovine diarrhea virus
Flaviviridae
Hepatitis C virus
Influenza A virus
Influenza B virus
Orthomyxoviridae
Paramyxoviridae
(treatment; prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT Infection
(viral, treatment; prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT **50-91-9P** 73-03-0P **131-06-6P** **147-94-4P**
316-46-1P 727-79-7P 957-77-7P 1445-07-4P 1826-95-5P
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67036-61-7P 67036-62-8P 67036-65-1P 69321-95-5P 70421-27-1P
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415705-75-8P 415705-77-0P 415705-78-1P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT 415705-79-2P 415705-80-5P 415705-81-6P 415705-82-7P 415705-83-8P
415705-84-9P 415705-85-0P 415705-86-1P 415705-87-2P 415705-88-3P
415705-89-4P 415705-90-7P 415705-92-9P 415705-94-1P 415705-96-3P
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415707-26-5P 415707-27-6P 415707-28-7P 415927-02-5P 415927-03-6P
415927-04-7P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT 2627-64-7P 3258-02-4P **3803-28-9P** 4710-75-2P 7057-27-4P
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405095-83-2P 405095-84-3P 415704-28-8P 415704-29-9P 415704-30-2P
415704-32-4P 415704-33-5P 415704-34-6P 415704-35-7P 415704-36-8P
415704-37-9P 415704-38-0P 415704-40-4P 415704-41-5P 415704-43-7P
415704-44-8P 415704-45-9P 415704-46-0P 415704-47-1P 415704-48-2P
RL: IMF (Industrial manufacture); **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT 51-21-8, 5-Fluorouracil 58-61-7, Adenosine, reactions **58-96-8,** Uridine 65-71-4, Thymine 87-42-3, 6-Chloropurine 1005-56-7, Phenyl chlorothionoformate 3106-03-4, 5-Nitrouridine 3768-18-1 5432-33-7 6553-96-4, 2,4,6-Triisopropylbenzenesulfonyl chloride 10526-27-9

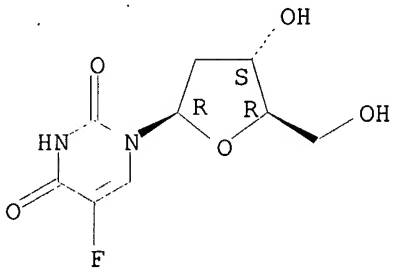
20031-21-4 42927-46-8 128114-98-7 223596-25-6 415704-42-6
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT 417196-37-3 417196-38-4 417196-39-5 417196-40-8 417196-41-9
417196-42-0
RL: PRP (Properties)
(unclaimed sequence; prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

IT **50-91-9P 131-06-6P 147-94-4P 316-46-1P**
2341-22-2P 3066-86-2P 4298-10-6P
10212-19-8P 17676-66-3P 27921-78-4P
32791-81-4P 57729-40-5P 58461-30-6P
58461-34-0P 77180-78-0P 77210-26-5P
77210-27-6P 83966-93-2P 374107-80-9P
415704-56-2P 415704-57-3P 415704-62-0P
415704-64-2P 415704-70-0P 415704-81-3P
415704-82-4P 415704-89-1P 415704-90-4P
415704-91-5P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)

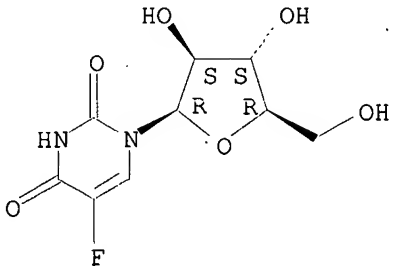
RN 50-91-9 HCAPLUS
CN Uridine, 2'-deoxy-5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



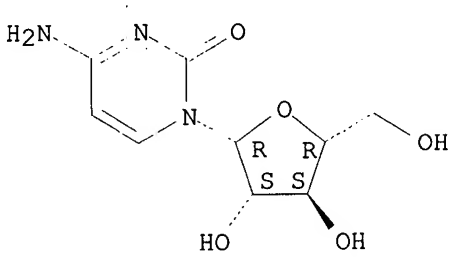
RN 131-06-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-arabinofuranosyl-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



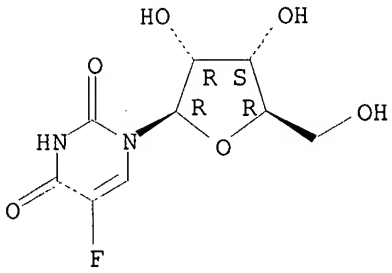
RN 147-94-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



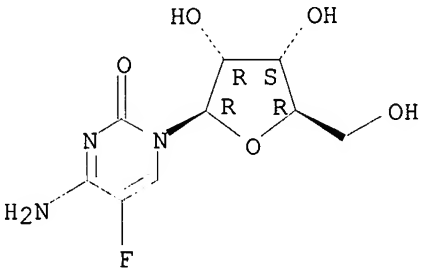
RN 316-46-1 HCAPLUS
CN Uridine, 5-fluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



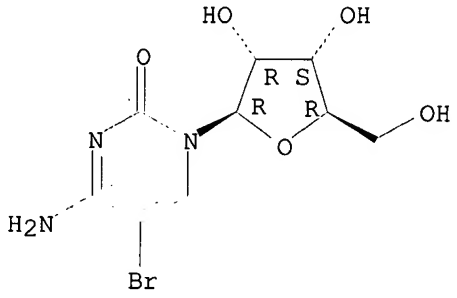
RN 2341-22-2 HCAPLUS
CN Cytidine, 5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



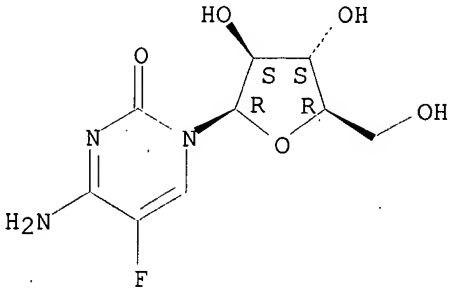
RN 3066-86-2 HCAPLUS
CN Cytidine, 5-bromo- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



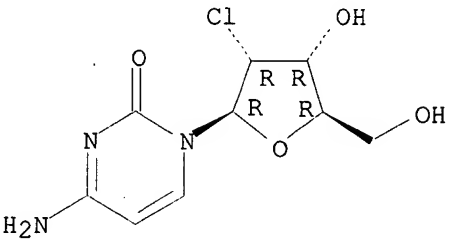
RN 4298-10-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



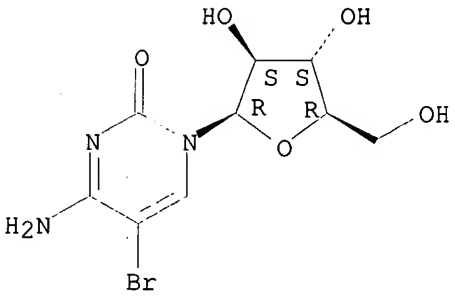
RN 10212-19-8 HCAPLUS
CN Cytidine, 2'-chloro-2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



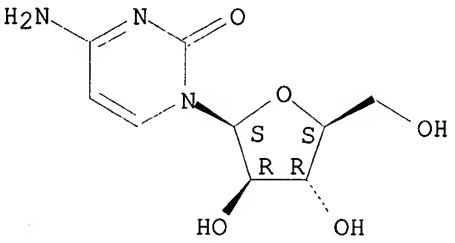
RN 17676-66-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl-5-bromo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



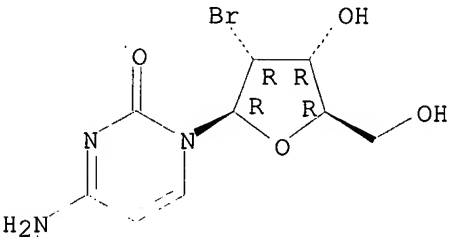
RN 27921-78-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-L-arabinofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



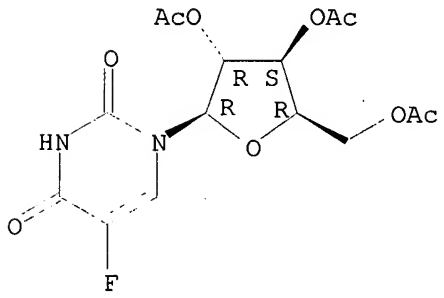
RN 32791-81-4 HCAPLUS
CN Cytidine, 2'-bromo-2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



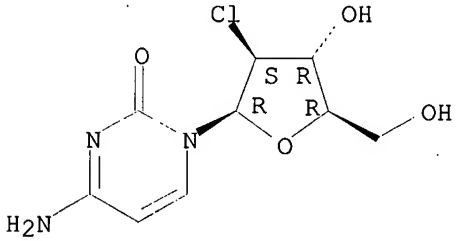
RN 57729-40-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1-(2,3,5-tri-O-acetyl-.beta.-D-xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



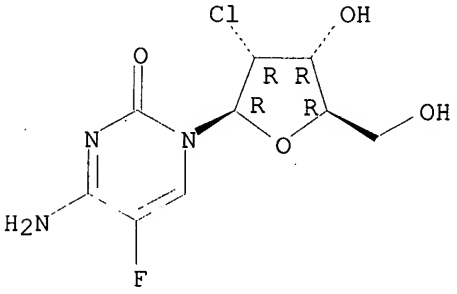
RN 58461-30-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-chloro-2-deoxy-.beta.-D-arabinofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



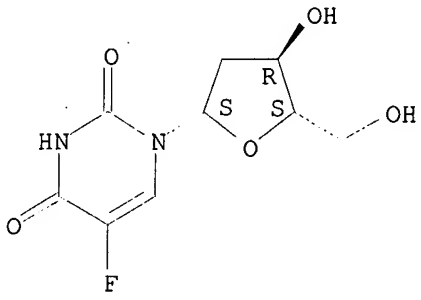
RN 58461-34-0 HCAPLUS
CN Cytidine, 2'-chloro-2'-deoxy-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



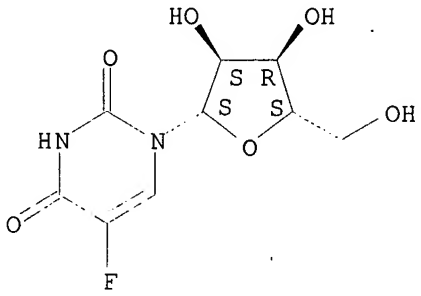
RN 77180-78-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-.beta.-L-erythro-pentofuranosyl)-5-
fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



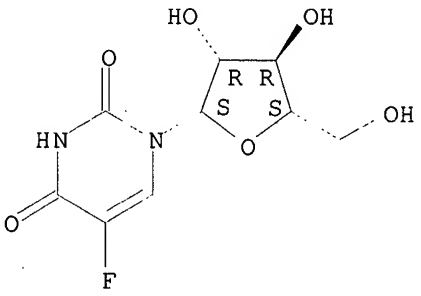
RN 77210-26-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1-.beta.-L-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



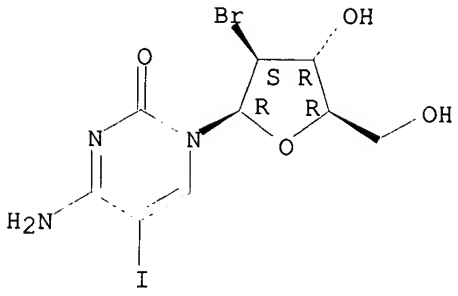
RN 77210-27-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-L-arabinofuranosyl-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



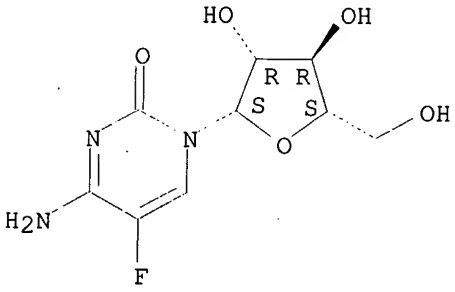
RN 83966-93-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-bromo-2-deoxy-.beta.-D-arabinofuranosyl)-5-iodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



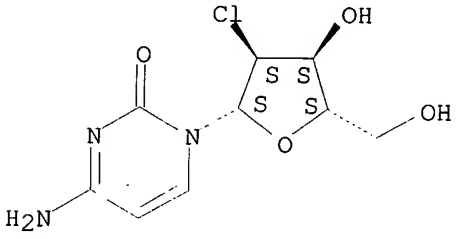
RN 374107-80-9 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-L-arabinofuranosyl-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



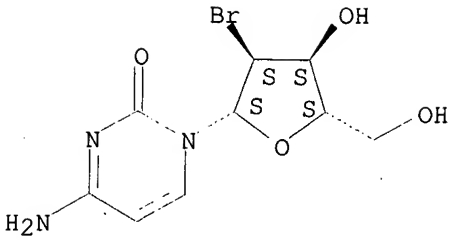
RN 415704-56-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-chloro-2-deoxy-.beta.-L-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



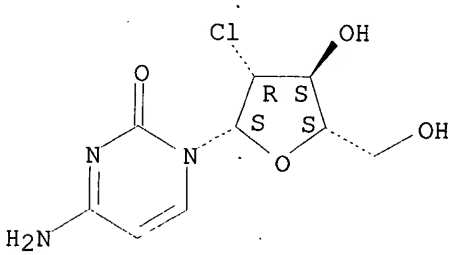
RN 415704-57-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-bromo-2-deoxy-.beta.-L-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



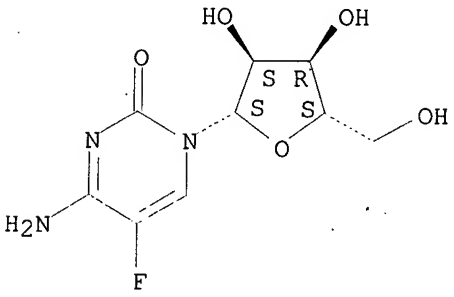
RN 415704-62-0 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-chloro-2-deoxy-.beta.-L-arabinofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



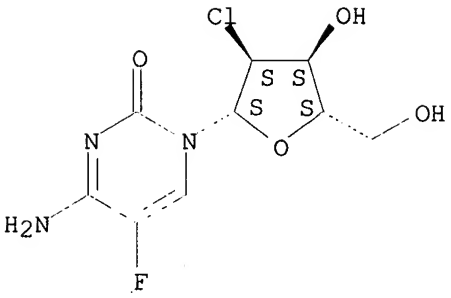
RN 415704-64-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-5-fluoro-1-.beta.-L-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



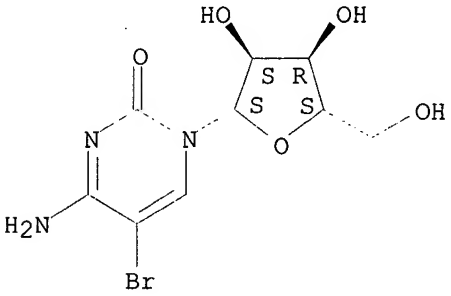
RN 415704-70-0 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-chloro-2-deoxy-.beta.-L-ribofuranosyl)-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



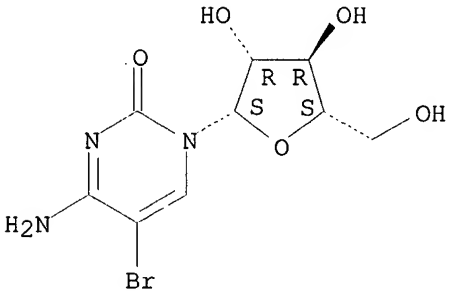
RN 415704-81-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-5-bromo-1-.beta.-L-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



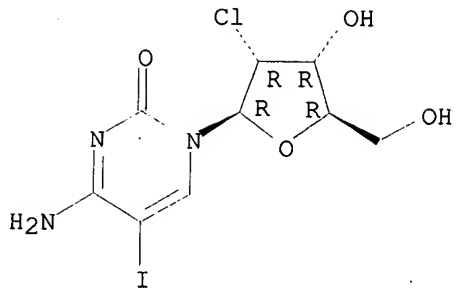
RN 415704-82-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-L-arabinofuranosyl-5-bromo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



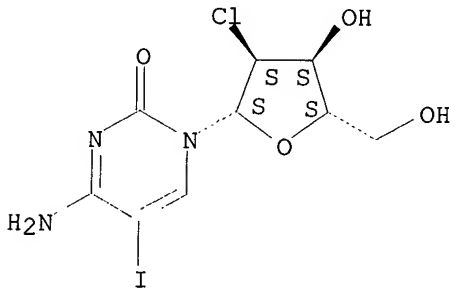
RN 415704-89-1 HCAPLUS
CN Cytidine, 2'-chloro-2'-deoxy-5-iodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



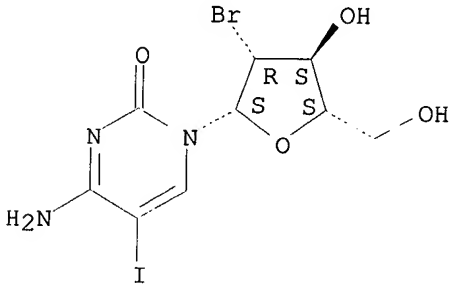
RN 415704-90-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-chloro-2-deoxy-.beta.-L-ribofuranosyl)-5-iodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



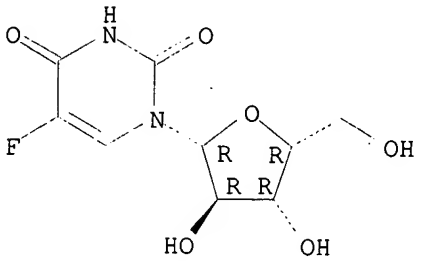
RN 415704-91-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-bromo-2-deoxy-.beta.-L-arabinofuranosyl)-5-iodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



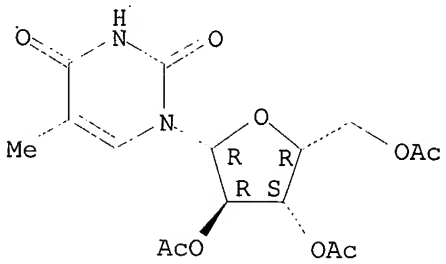
IT **3803-28-9P 14057-25-1P**
RL: IMF (Industrial manufacture); **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)
RN 3803-28-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro-1-.beta.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



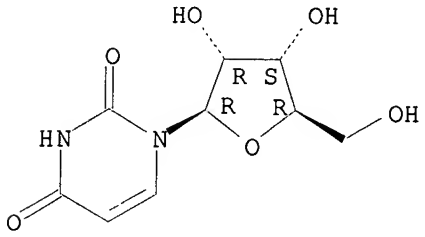
RN 14057-25-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-(2,3,5-tri-O-acetyl-.beta.-D-xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **58-96-8**, Uridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. of modified nucleosides for treatment of viral infections and abnormal cellular proliferation)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:180164 HCAPLUS
DN 137:47389
TI Synthesis of N4-alkyl-5-methyl-2'-deoxycytidine
AU Yu, Jianxin; Zhang, Wannian; Zhu, Ju; Lu, Jiaguo; Li, Ke
CS Department of Pharmacy, Second Military Medical University, Shanghai, 200433, Peop. Rep. China
SO Zhongguo Yiyao Gongye Zazhi (**2001**), 32(12), 547-549
CODEN: ZYGZEA; ISSN: 1001-8255
PB Zhongguo Yiyao Gongye Zazhi Bianjibu
DT Journal
LA Chinese
CC 33-9 (Carbohydrates)
OS CASREACT 137:47389

AB A series of new N4-alkyl-5-methyl-2'-deoxytidines were synthesized by displacement of triazole group at C4 of 1-(3',5'- O-dibenzoyl-.beta.-D-ribofuranosyl)-4-(1,2,4-triazol-1-yl)-5-methyl-pyrimidin-2(1H)-one, which was obtained by condensation of 3',5'-O-dibenzoylthymidine with 1,2,4-triazole in the presence of POCl3.

ST alkyl methyldeoxycytidine prepn substitution reaction

IT Heterocyclic compounds
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nitrogen; synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT Substitution reaction
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT Nucleosides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT 10025-87-3, Phosphoric trichloride
RL: CAT (Catalyst use); USES (Uses)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT 75-31-0, Isopropyl **amine**, reactions 98-88-4, Benzoyl chloride 104-94-9, 4-Methoxyphenyl **amine** 107-11-9, Allyl **amine** **25406-45-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT **50-89-5P**, Thymidine, preparation 288-88-0P, 1H-1,2,4-Triazole 78138-02-0P 438588-33-1P 438588-41-1P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

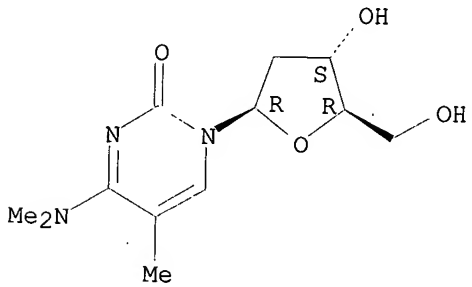
IT **25406-43-3P 25406-44-4P** 104579-02-4P **438588-38-6P 438588-39-7P 438588-40-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

IT **25406-45-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

RN 25406-45-5 HCAPLUS

CN Cytidine, 2'-deoxy-N,N,5-trimethyl- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

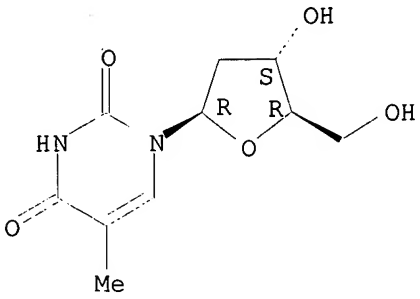


IT **50-89-5P**, Thymidine, preparation
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)

RN 50-89-5 HCAPLUS

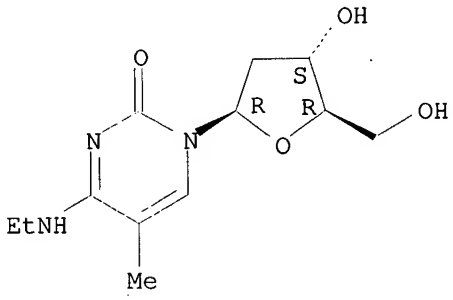
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



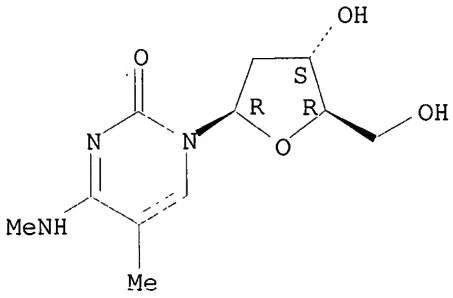
IT **25406-43-3P 25406-44-4P 438588-38-6P**
438588-39-7P 438588-40-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of N4-alkyl-5-methyl-2'-deoxycytidine)
RN 25406-43-3 HCAPLUS
CN Cytidine, 2'-deoxy-N-ethyl-5-methyl- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



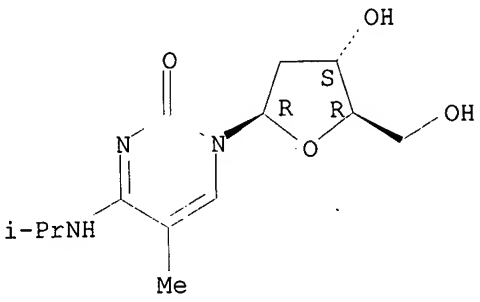
RN 25406-44-4 HCAPLUS
CN Cytidine, 2'-deoxy-N,5-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



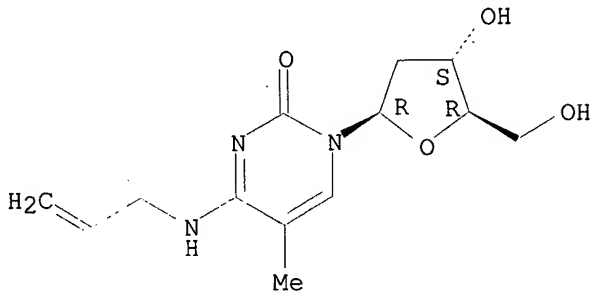
RN 438588-38-6 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



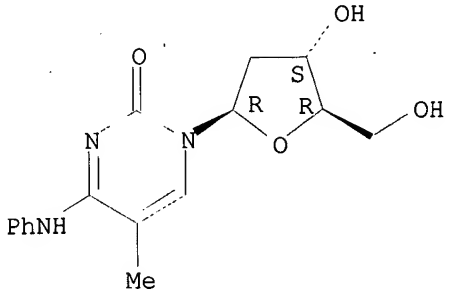
RN 438588-39-7 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-N-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 438588-40-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-N-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:251183 HCAPLUS
DN 128:321868
TI Improved coupling activators for oligonucleotide synthesis
IN Vargeese, Chandra; Pieken, Wolfgang; Carter, Jeffrey D.; Yegge, John
PA Nexstar Pharmaceuticals, Inc., USA; Vargeese, Chandra; Pieken, Wolfgang; Carter, Jeffrey D.; Yegge, John
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07H021-00

ICS C07H021-04; C07H001-00
CC 33-10 (Carbohydrates)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9816540	A1	19980423	WO 1997-US15744	19971008 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9748001	A1	19980511	AU 1997-48001	19971008 <--
PRAI	US 1996-730556		19961015 <--		
	US 1997-937867		19970925 <--		
	WO 1997-US15744		19971008 <--		

AB A method for coupling phosphoramidite monomers with nucleophiles, for example, the 5'-hydroxyl group on the growing oligonucleotide chain, using a coupling activator that is less acidic than and at least as nucleophilic as tetrazole and that provides comparable or better coupling efficiency than tetrazole. The pKa of the coupling activator is between 5.0 and 6.0, preferably between 5.0 and 5.5, and, more preferably, between 5.1 and 5.3. Suitable coupling activators include 4,5-dicyanoimidazole (DCI), 4-alkylthioimidazole, 2-alkylthioimidazole, 2-nitroimidazole, 4-nitroimidazole, 4,5-dihaloimidazole, 4-haloimidazole, 2-haloimidazole and 5-alkoxytetrazole. DCI is the most preferred coupling activator. Alternatively, a combination of an acidic coupling activator and a suitable buffer, such as a tertiary **amine**, can be employed. The tertiary **amine** can be a tertiary **amine** with three alkyl groups or a heterocyclic compd. contg. one or more tertiary **amines**. Preferably the tertiary **amine** is less nucleophilic than DMAP, which is known to cause side reactions at the 6-position oxygen of guanosines due to its relatively high nucleophilicity. N-methylimidazole (NMI) is the preferred tertiary **amine**.

ST oligodeoxyribonucleotide synthesis coupling activator imidazole

IT Oligodeoxyribonucleotides
RL: SPN (Synthetic preparation); PREP (Preparation)
(improved imidazole coupling activators for oligodeoxyribonucleotide synthesis)

IT Coupling reaction
(improved imidazole coupling activators for oligonucleotide synthesis)

IT 98796-51-1P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(improved imidazole coupling activators for oligonucleotide synthesis)

IT **10212-20-1P** 205454-24-6P 205454-25-7P 205454-26-8P 205454-27-9P 206887-59-4P 206887-60-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(improved imidazole coupling activators for oligonucleotide synthesis)

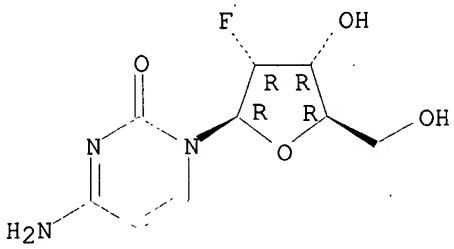
IT 1122-28-7P, 1H-Imidazole-4,5-dicarbonitrile
RL: PUR (Purification or recovery); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(improved imidazole coupling activators for oligonucleotide synthesis)

IT 288-94-8, 1H-Tetrazole 616-47-7, N-Methylimidazole **10212-13-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(improved imidazole coupling activators for oligonucleotide synthesis)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Reddy; US 5574146 A 1996 HCAPLUS

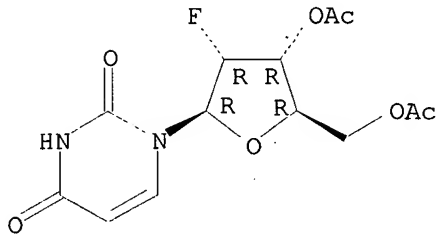
IT **10212-20-1P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(improved imidazole coupling activators for oligonucleotide synthesis)
RN 10212-20-1 HCAPLUS
CN Cytidine, 2'-deoxy-2'-fluoro- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **10212-13-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(improved imidazole coupling activators for oligonucleotide synthesis)
RN 10212-13-2 HCAPLUS
CN Uridine, 2'-deoxy-2'-fluoro-, 3',5'-diacetate (8CI, 9CI) (CA INDEX NAME)

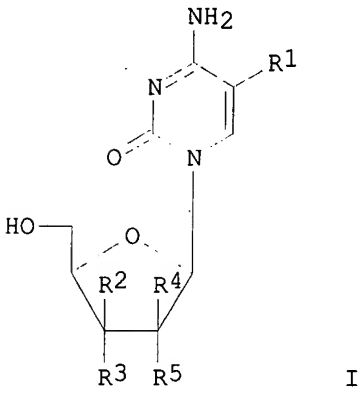
Absolute stereochemistry.



L75 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:259665 HCAPLUS
DN 126:277718
TI One-pot synthesis of 4-aminopyrimidine nucleoside from 4-hydroxypyrimidine nucleoside
IN Mori, Takeya
PA Yamasa Shoyu Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H019-06
CC 33-9 (Carbohydrates)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 09059292	A2	19970304	JP 1995-240927	19950825 <--
PRAI JP 1995-240927		19950825 <--		

OS CASREACT 126:277718; MARPAT 126:277718
GI



I

AB The title compds. (I; R1 = H, lower alkyl, halo; R2 - R5 = H, OH) are prepd. by protecting hydroxy groups of 4-hydroxypyrimidine nucleosides (II; R1 - R5 = same as above) with trimethylsilyl group and subsequent reaction with phosphorus oxychloride or 4-chlorophenyl phosphorodichloridate and **amination** with aq. NH3 without isolating the resulting intermediate. The procedures of this process are simpler than those of prior art and the reaction can be carried out under mild conditions in one pot. Thus, 5.1 mL trimethylsilyl chloride was added to a soln. of 2.44 g uridine in 50 mL pyridine, stirred at room temp. for 1 h, followed by adding 2 mL POCl3, and the resulting mixt. was stirred at room temp. for 4 h. To the reaction mixt. was added 5 mL ice-cooled H2O at 0.degree. and after stirring the mixt. for 30 min, 20 mL 25 aq. NH3 was added and stirred at 50.degree. for 2 h to give, after purifn. using ion exchange resin PK216, 83.9% cytidine. Similarly prepd. were 5-methylcytidine and 5-bromocytidine from 5-methyluridine and 5-bromouridine, resp.

ST aminopyrimidine nucleoside one pot prepn; hydroxypyrimidine nucleoside **amination**; phosphorus oxychloride condensation hydroxypyrimidine nucleoside; trimethylsilylation hydroxypyrimidine nucleoside

IT Pyrimidine nucleosides
RL: SPN (Synthetic preparation); PREP (Preparation)
(One-pot synthesis of aminopyrimidine nucleosides from hydroxypyrimidine nucleosides)

IT **58-96-8**, Uridine 75-77-4, Trimethylsilyl chloride, reactions 772-79-2, 4-Chlorophenyl phosphorodichloridate **957-75-5**, 5-Bromouridine **1463-10-1**, 5-Methyluridine 7664-41-7, Ammonia, reactions 10025-87-3, Phosphorus oxychloride
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(One-pot synthesis of aminopyrimidine nucleosides from hydroxypyrimidine nucleosides)

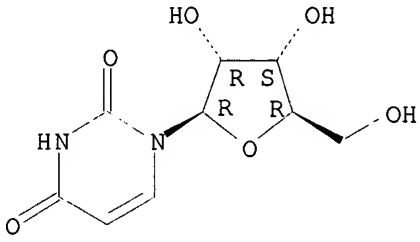
IT **65-46-3P**, Cytidine **2140-61-6P**, 5-Methylcytidine **3066-86-2P**, 5-Bromocytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(One-pot synthesis of aminopyrimidine nucleosides from hydroxypyrimidine nucleosides)

IT **58-96-8**, Uridine **957-75-5**, 5-Bromouridine **1463-10-1**, 5-Methyluridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(One-pot synthesis of aminopyrimidine nucleosides from hydroxypyrimidine nucleosides)

RN 58-96-8 HCAPLUS

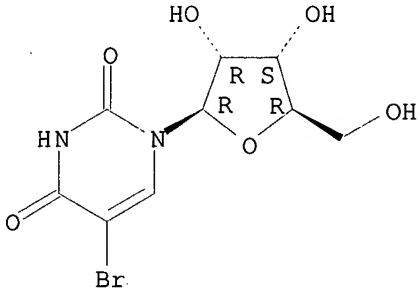
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



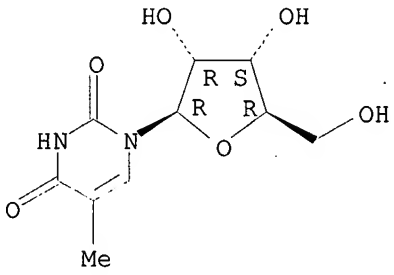
RN 957-75-5 HCAPLUS
CN Uridine, 5-bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



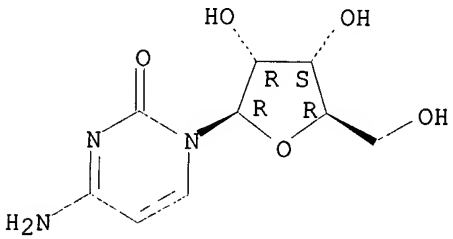
RN 1463-10-1 HCAPLUS
CN Uridine, 5-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



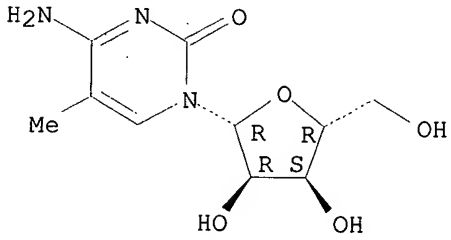
IT **65-46-3P**, Cytidine **2140-61-6P**, 5-Methylcytidine
3066-86-2P, 5-Bromocytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(One-pot synthesis of aminopyrimidine nucleosides from hydroxypyrimidine nucleosides)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



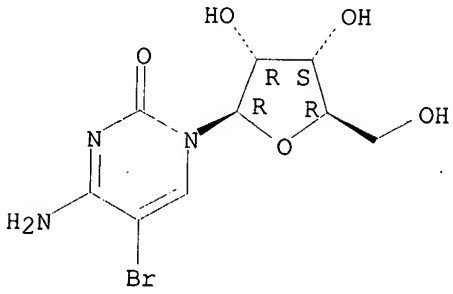
RN 2140-61-6 HCAPLUS
CN Cytidine, 5-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

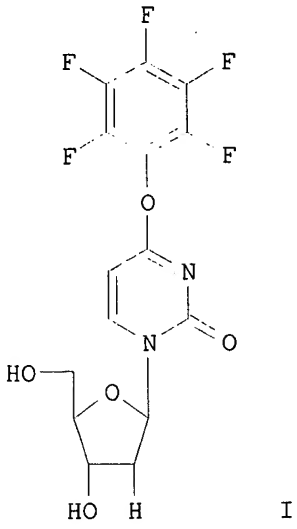


RN 3066-86-2 HCAPLUS
CN Cytidine, 5-bromo- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1995:614105 HCAPLUS
DN 123:314326
TI Direct synthesis, substitution, and structure of 1-(2'-deoxy-.beta.-D-erythro-pentofuranosyl)-4-pentafluorophenylpyrimidin-2H-one
AU Wallis, Mark P.; Spiers, Ian D.; Schwalbe, Carl H.; Fraser, William
CS Pharmaceutical Sci. Inst., Aston Univ., Birmingham, B4 7ET, UK
SO Tetrahedron Letters (**1995**), 36(21), 3759-62
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
CC 33-9 (Carbohydrates)
GI



I

AB Direct methods have been developed to access the title nucleoside I from 2'-deoxyuridine. The C-4 pentafluorophenyl group of I is readily displaced by **amine** nucleophiles forming N-4 substituted cytosines in good to excellent yields.

ST **amine** nucleophilic substitution pentafluorophenylpyrimidinone nucleoside; nucleoside pentafluorophenylpyrimidinone prepn mol structure; deoxypentofuranosyl pentafluorophenylpyrimidinone prepn mol structure

IT Substitution reaction, nucleophilic
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

IT Nucleosides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

IT 64-04-0, Benzeneethanamine 589-08-2, N-MethylBenzeneethanamine 771-61-9, Pentafluorophenol **951-78-0**, 2'-Deoxyuridine 83392-10-3
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

IT **109389-24-4P** 170114-35-9P 170114-39-3P 170114-41-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

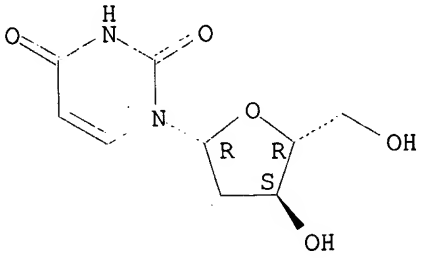
IT **104105-76-2P** 170114-36-0P 170114-37-1P 170114-38-2P 170114-40-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

IT **951-78-0**, 2'-Deoxyuridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)

RN 951-78-0 HCAPLUS

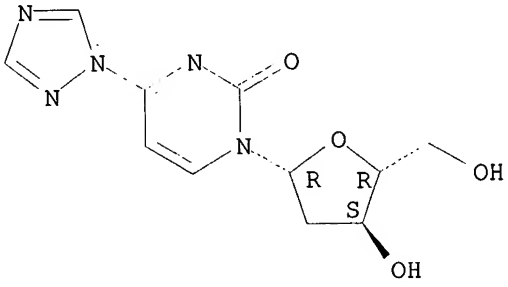
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



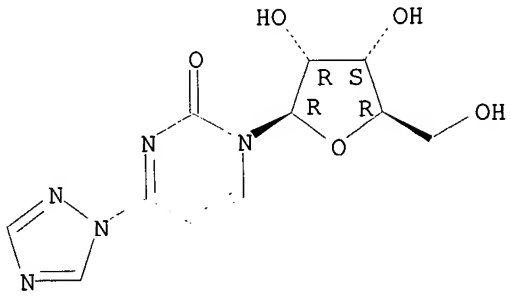
IT **109389-24-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)
RN 109389-24-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **104105-76-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and substitution and mol. structure of deoxypentofuranosyl pentafluorophenylpyrimidinone)
RN 104105-76-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-.beta.-D-ribofuranosyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

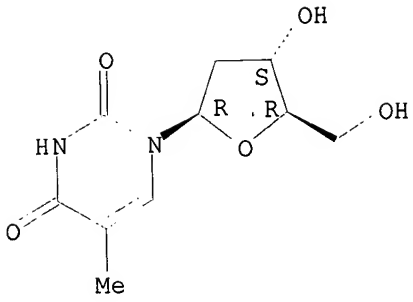
Absolute stereochemistry.



L75 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1995:224840 HCAPLUS
DN 122:240302
TI A new and efficient synthesis of cytidine and adenosine derivatives by dimethyldioxirane oxidation of thiopyrimidine and thiopurine nucleosides

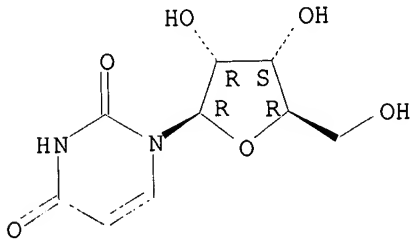
AU Saladino, Raffaele; Crestini, Claudia; Bernini, Roberta; Frachey, Giuseppe; Mincione, Enrico
CS Dipartimento Agrochimico Agrobiologico, Universita degli studi di Viterbo La Tuscia, Viterbo, 01100, Italy
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (**1994**), (21), 3053-4
CODEN: JCPRB4; ISSN: 0300-922X
PB Royal Society of Chemistry
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 122:240302
AB Dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides, in the presence of **amines** in stoichiometric amt., afforded selectively and under mild exptl. conditions cytidine and adenosine nucleosides.
ST thiopurine nucleoside stereoselective oxidn dimethyldioxirane; dimethyldioxirane stereoselective oxidn thiopyrimidine nucleoside
IT Oxidation
Stereochemistry
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
IT Nucleosides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
IT **50-89-5**, Thymidine, reactions **58-96-8**, Uridine **951-78-0** 3021-21-4 153336-41-5
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
IT 7387-57-7P 20188-74-3P 55003-25-3P **56787-28-1P** **65919-98-4P** 103931-23-3P **111426-20-1P** **115652-25-0P** **162210-81-3P** 162210-82-4P 162210-85-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
IT 58-61-7P, Adenosine, preparation **65-46-3P**, Cytidine **838-07-3P** **951-77-9P** 2096-10-8P **10578-79-7P** **162210-83-5P** 162210-84-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
IT **50-89-5**, Thymidine, reactions **58-96-8**, Uridine **951-78-0**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



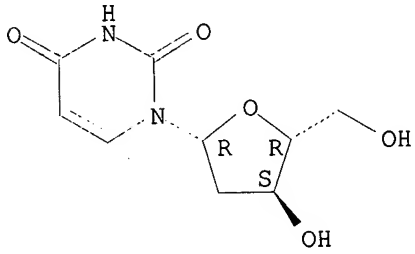
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



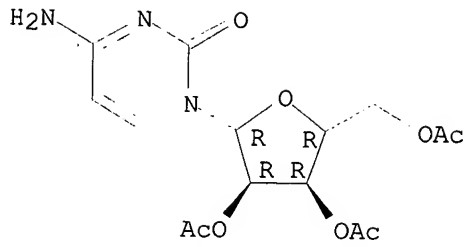
RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



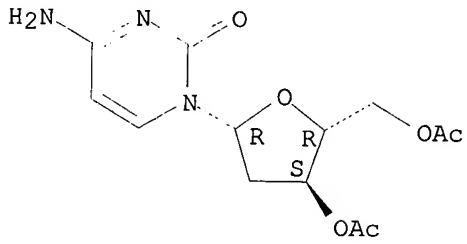
IT **56787-28-1P 65919-98-4P 111426-20-1P**
115652-25-0P 162210-81-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
RN 56787-28-1 HCAPLUS
CN Cytidine, 2',3',5'-triacetate (7CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



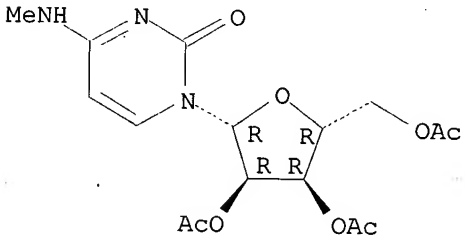
RN 65919-98-4 HCAPLUS
CN Cytidine, 2'-deoxy-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



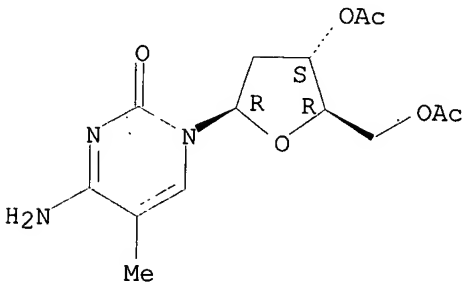
RN 111426-20-1 HCAPLUS
CN Cytidine, N-methyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 115652-25-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, 3',5'-diacetate (9CI) (CA INDEX NAME)

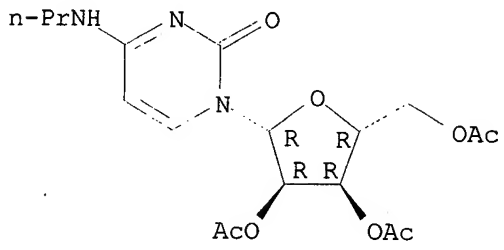
Absolute stereochemistry.



RN 162210-81-3 HCAPLUS

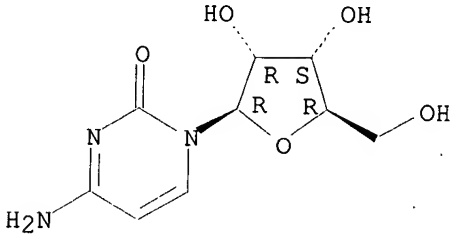
CN Cytidine, N-propyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



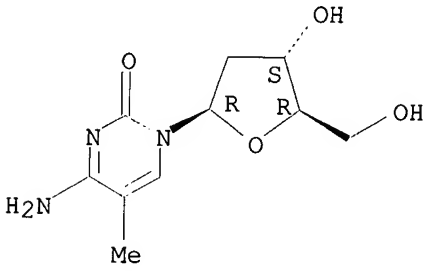
IT **65-46-3P**, Cytidine **838-07-3P 951-77-9P**
10578-79-7P 162210-83-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of cytidine and adenosine derivs. by dimethyldioxirane oxidn. of thiopyrimidine and thiopurine nucleosides)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



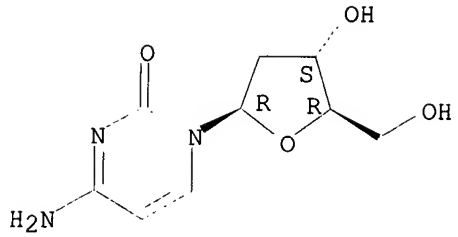
RN 838-07-3 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



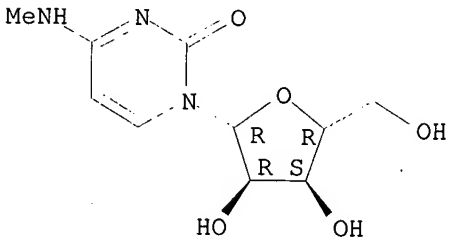
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



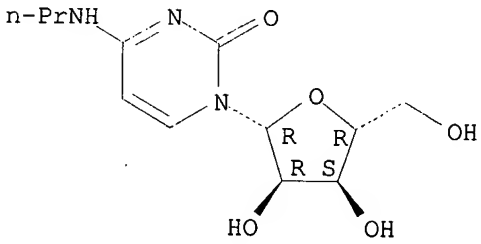
RN 10578-79-7 HCAPLUS
CN Cytidine, N-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162210-83-5 HCAPLUS
CN Cytidine, N-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1995:65930 HCAPLUS
DN 122:81860
TI Oxidation of nucleic acid related compounds by the peroxodisulfate ion
AU Itahara, Toshio; Yoshitake, Takashi; Koga, Sunao; Nishino, Akihiro
CS College Lib. Arts, Kagoshima Univ., Kagoshima, 890, Japan
SO Bulletin of the Chemical Society of Japan (**1994**), 67(8), 2257-64
CODEN: BCSJA8; ISSN: 0009-2673
DT Journal
LA English
CC 33-9 (Carbohydrates)
AB The treatment of nucleic acid bases, nucleosides, and nucleotides with peroxodisulfate ion in a phosphate buffer soln. at pH 7.0 or water at 70-75 .degree.C was investigated. The reaction of thymine and 5-methylcytosine nucleosides and nucleotides resulted in the oxidn. of the 5-Me groups. The oxidn. products from 1,3-dimethyluracils and the time-course of the reaction of uracils led to two plausible reaction mechanisms for the oxidn. of uracils.

ST nucleic acid oxidn peroxodisulfate; nucleobase oxidn peroxodisulfate; nucleotide oxidn peroxodisulfate; nucleoside oxidn peroxodisulfate

IT Nucleic acid bases
RL: RCT (Reactant); RACT (Reactant or reagent)

IT Oxidation
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

IT Nucleosides, reactions
Nucleotides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

IT **50-89-5**, Thymidine, reactions 58-61-7, Adenosine, reactions **58-96-8**, Uridine **65-46-3**, Cytidine 66-22-8, 2,4(1H,3H)-Pyrimidinedione, reactions 71-30-7 73-24-5, 1H-Purin-6-**amine**, reactions 874-14-6 **951-77-9 951-78-0** 958-09-8 3013-92-1 4401-71-2 7033-39-8 18531-27-6 61240-13-9 108320-84-9 108321-45-5 160509-67-1 160509-70-6 160509-76-2
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

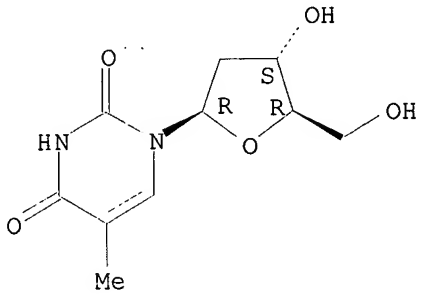
IT 137017-45-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

IT 65-71-4P 120-89-8P, Imidazolidinetrione 132-00-3P **838-07-3P** 1123-95-1P 1195-08-0P 2835-45-2P 3106-18-1P 4425-59-6P 4433-40-3P 4494-26-2P 4869-46-9P 5116-24-5P 5176-82-9P 7226-77-9P 13509-52-9P 14181-46-5P 15718-50-0P 20406-86-4P 20636-41-3P 56070-36-1P 107097-10-9P 138610-55-6P 160509-68-2P 160509-69-3P 160509-71-7P 160509-72-8P 160509-73-9P 160509-74-0P 160509-75-1P 160509-77-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

IT **50-89-5**, Thymidine, reactions **58-96-8**, Uridine **65-46-3**, Cytidine **951-77-9 951-78-0**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

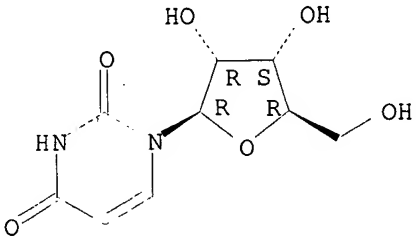
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



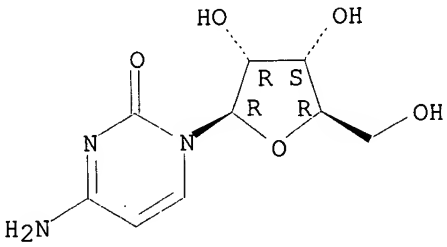
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



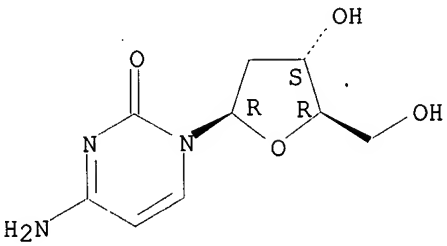
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



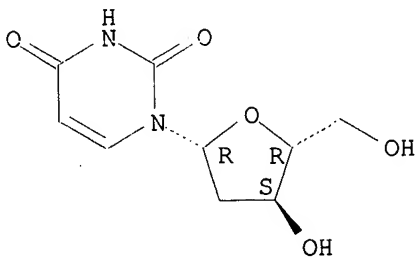
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

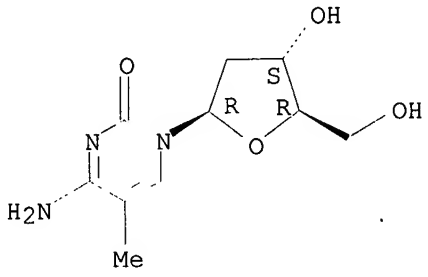
Absolute stereochemistry.



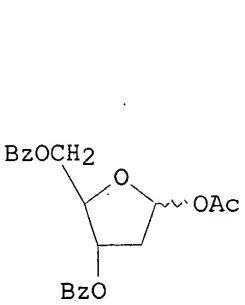
IT **838-07-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidn. of nucleic acid related compds. by the peroxodisulfate ion)

RN 838-07-3 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

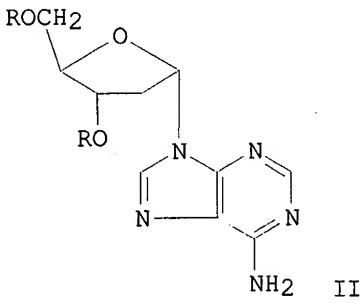
Absolute stereochemistry.



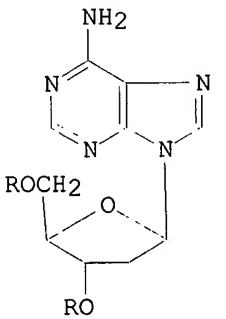
L75 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1991:7050 HCAPLUS
DN 114:7050
TI Improved procedure for the regiospecific synthesis of 2'-deoxyribonucleosides
AU Baud, M. V.; Chavis, C.; Lucas, M.; Imbach, J. L.
CS Lab. Chim. Bio-Org., Univ. Montpellier II, Montpellier, 34095, Fr.
SO Tetrahedron Letters (**1990**), 31(31), 4437-40
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 114:7050
GI



I



II



III

AB 2'-Deoxyribonucleosides are regiospecifically synthesized in high yields by the KI-dibenzo-18-crown-6 phase-transfer catalyzed condensation of unprotected silylated purines and pyrimidines with 2-deoxyribofuranosyl or

pyranosyl acetates. Thus, dibenzoyldeoxyfuranosyl acetates I were treated with trimethylsilylated adenine in the presence of KI-dibenzo-8-crown-6 in MeCN-PhMe to give 95% a mixt. of .alpha.- and .beta.-2'-deoxynucleosides II and III (R = Bz). Treatment with NH3-MeOH quant. gave II and III (R = H).

ST deoxyribonucleoside regioselective prepn pyrimidine; nucleoside deoxyribo; benzoyldeoxyfuranosyl acetate condensation silylated purine pyrimidine; benzoyldeoxypyranosyl acetate condensation silylated purine pyrimidine

IT Regiochemistry
(of condensation of silylated purines and pyrimidines with benzoylfuranosyl or -pyranosyl acetates)

IT Condensation reaction
(of silylated purines or pyrimidines with benzoylfuranosyl or -pyranosyl acetates, nucleosides from)

IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(deoxyribo-, prepn. of, by condensation of silylated purines or pyrimidines with benzoylfuranosyl or -pyranosyl acetates)

IT 65-71-4D, Thymine, silylated 71-30-7D, Cytosine, silylated 73-24-5D, 1H-Purin-6-**amine**, silylated 73-40-5D, Guanine, silylated
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with benzoylfuranosyl or -pyranosyl acetates)

IT 533-67-5, 2-Deoxy-D-ribose
RL: PROC (Process)
(conversion of, to benzoylfuranosyl and -pyranosyl acetates)

IT 20838-22-6P **20963-97-7P 35898-30-7P** 51549-15-6P
59921-49-2P 66048-53-1P 119933-37-8P 119933-40-3P 130703-07-0P
130703-08-1P 130703-09-2P 130703-10-5P **130703-11-6P**
130703-12-7P **130703-13-8P** 130703-14-9P 130703-15-0P
130703-16-1P 130703-17-2P 130703-18-3P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and ammonolysis of)

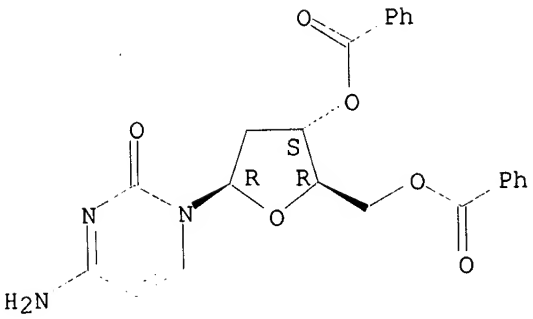
IT 6974-32-9P 51255-12-0P 130794-93-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and regioselective condensation of, with silylated purines or pyrimidines, nucleosides from)

IT **50-89-5P**, Thymidine, preparation 58-61-7P, Adenosine, preparation 118-00-3P, Guanosine, preparation **951-77-9P**
958-09-8P 961-07-9P 3413-66-9P **4449-40-5P 4449-43-8P**
5682-25-7P 7697-49-6P 13091-56-0P 13091-57-1P 15398-66-0P
17434-50-3P 19916-78-0P 103216-95-1P 103216-96-2P 130703-19-4P
130703-20-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **20963-97-7P 35898-30-7P 130703-11-6P**
130703-13-8P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and ammonolysis of)

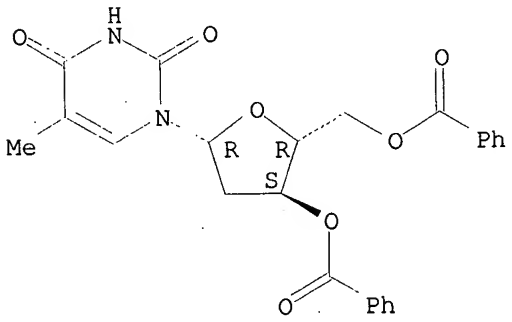
RN 20963-97-7 HCAPLUS
CN Cytidine, 2'-deoxy-, 3',5'-dibenzoate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



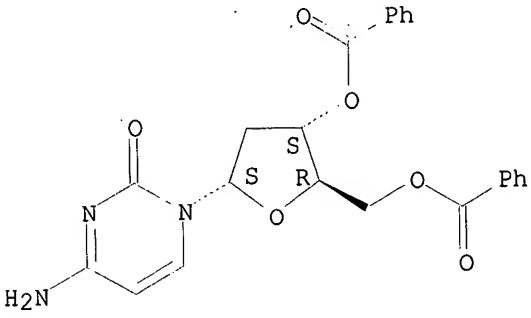
RN 35898-30-7 HCAPLUS
CN Thymidine, 3',5'-dibenzoate (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



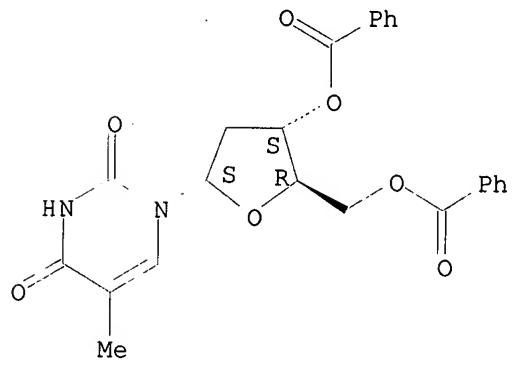
RN 130703-11-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(3,5-di-O-benzoyl-2-deoxy-.alpha.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



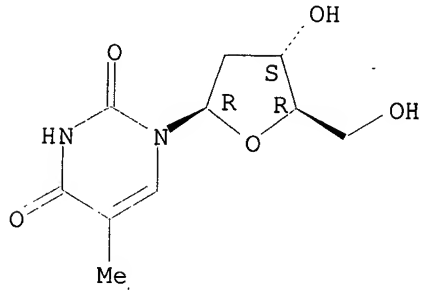
RN 130703-13-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(3,5-di-O-benzoyl-2-deoxy-.alpha.-D-erythro-pentofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



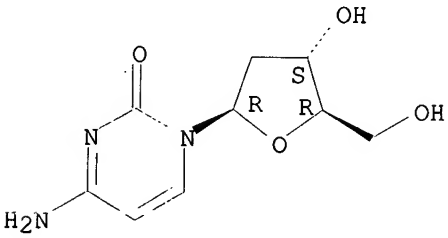
IT **50-89-5P**, Thymidine, preparation **951-77-9P**
4449-40-5P 4449-43-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



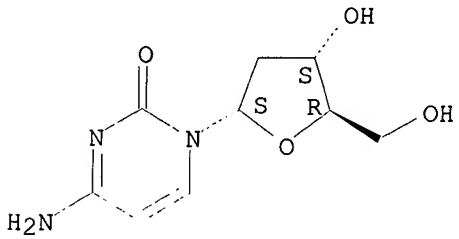
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



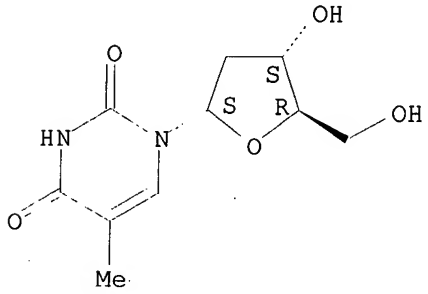
RN 4449-40-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-deoxy-.alpha.-D-erythro-pentofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 4449-43-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-.alpha.-D-erythro-pentofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1990:631914 HCAPLUS
DN 113:231914
TI A simple method for the solid phase synthesis of oligodeoxynucleotides containing O4-alkylthymine
AU Xu, Yao Zhong; Swann, Peter F.
CS Dep. Biochem., Univ. Coll., London, WC1E 6BT, UK
SO Nucleic Acids Research (1990), 18(14), 4061-5
CODEN: NARHAD; ISSN: 0305-1048
DT Journal
LA English
CC 33-9 (Carbohydrates)
AB A route to prep. the cyanoethyl phosphoramidite monomer of O4-alkylthymine and a method for the routine solid-phase synthesis of oligodeoxynucleotides contg. O4-alkylthymine are described. This method was used to make DNA sequences up to 48 bases in length. The amino function of the adenine and guanine in the sequence were protected with the phenoxyacetyl group, and that of cytosine with the isobutyryl group. The phosphodiesters were protected with the cyanoethyl group. This allowed complete deprotection of the oligomer with alkoxide ions (methanol/1,8- diazabicyclo[5.4.0]undec-7-ene (DBU) for the oligomers contg. O4-methylthymine, or ethanol/DBU for those contg. O4-ethylthymine) attack the O4-alkylthymine to form 5-methylcytosine. There was no detectable loss of the alkyl group to form thymine.
ST oligodeoxynucleotide solid phase synthesis; thymidine oxygen alkylated prepn phosphorylation; phosphorylation alkylthymidine ethylthymidine methylthymidine; alkylthymidine phosphoramidite prepn oligomerization; ethylthymidine phosphoramidite prepn oligomerization; methylthymidine phosphoramidite prepn oligomerization; oligomerization alkylthymidine ethylthymidine methylthymidine phosphoramidite
IT Nucleotides, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)
(O-alkylthymidine phosphoramidates, prepn. of, as monomers for oligonucleotide synthesis)

IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(O-alkylthymidines, phosphorylation of, with chloro(cyanoethoxy)(diisopropylamino)phosphine)

IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(O-alkylthymidines, prepn. of, as precursors of oligonucleotide monomers)

IT Nucleotides, polymers
RL: RCT (Reactant); RACT (Reactant or reagent)
(oligo-, deoxy-, solid phase synthesis of, using O-alkylthymidine phosphoramidates)

IT Nucleotides, polymers
RL: RCT (Reactant); RACT (Reactant or reagent)
(oligo-, deoxyribo-, solid phase synthesis of, using O-alkylthymidine phosphoramidates)

IT 117775-85-6P 117775-90-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and phosphorylation of, with chloro(cyanoethoxy)(diisopropylamino)phosphine)

IT 50591-13-4P, O4-Methylthymidine 59495-22-6P, O4-Ethylthymidine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and tritylation of, with dimethoxytrityl chloride)

IT 130583-06-1P 130583-07-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as oligonucleotide monomer for solid phase synthesis)

IT **80991-40-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., alkoxylation, and desilylation of)

IT **40733-26-4P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn., chlorination, and **amination** of, with imidazole)

IT **50-89-5**, Thymidine, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(silylation of)

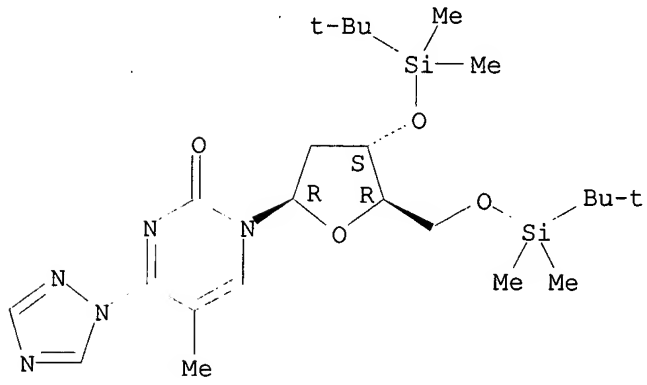
IT 130583-08-3P 130583-09-4P 130583-10-7P 130583-11-8P 130583-12-9P 130583-13-0P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(solid phase synthesis of, using O-alkylthymidines)

IT **80991-40-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., alkoxylation, and desilylation of)

RN 80991-40-8 HCAPLUS

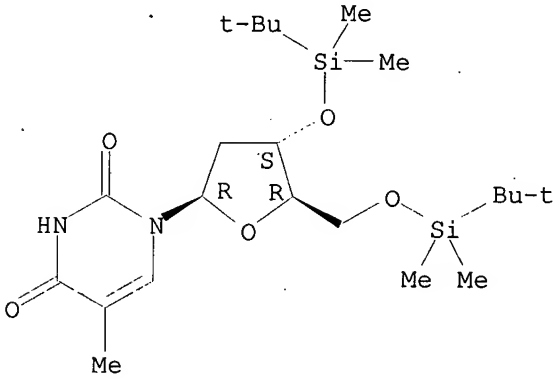
CN 2(1H)-Pyrimidinone, 1-[2-deoxy-3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-erythro-pentofuranosyl]-5-methyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



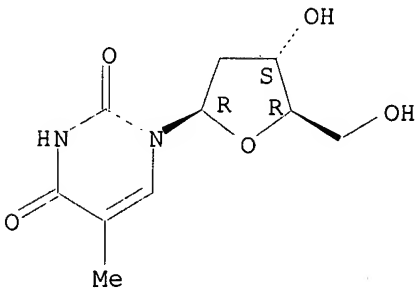
IT **40733-26-4P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn., chlorination, and **amination** of, with imidazole)
RN 40733-26-4 HCAPLUS
CN Thymidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **50-89-5**, Thymidine, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(silylation of)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

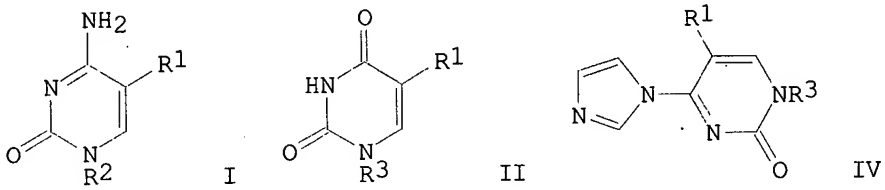
Absolute stereochemistry.



L75 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1989:633480 HCAPLUS
DN 111:233480
TI Preparation of cytosine derivatives
IN Ikeda, Takao
PA Yamasa Shoyu Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H019-06
CC 33-9 (Carbohydrates)
Section cross-reference(s): 28
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01143892	A2	19890606	JP 1987-302889	19871130 <--
	JP 07103149	B4	19951108		
PRAI	JP 1987-302889		19871130 <--		

OS MARPAT 111:233480
GI



AB The title derivs. I (R1 = H, halo, alkyl; R2 = sugar residue), were prepd. in high yield by treating uracils II (R1 = same as I, R3 = sugar residue whose OHs were protected) with imidazole (III) in the presence of phosphates, then **aminating** the resulting imidazolylpyrimidinones (IV). Thus, 2'-deoxyuridine diacetate was stirred with III in the presence of Et3N and (PhO)2POCl at 90.degree. for 1 day, treated with aq. NH3, then treated with conc. HCl to give 93% 2'-deoxycytidine-HCl.

ST cytosine sugar; cytidine; uracil substitution imidazole

IT **69-74-9P**, 1-(.beta.-D-Arabinofuranosyl)cytosine hydrochloride
3992-42-5P 7244-51-1P, Cytidine hydrochloride
123931-03-3P, 2',3'-Dideoxycytidine hydrochloride
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by substitution of uracils with imidazole)

IT 288-32-4, Imidazole, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution by, of uracils)

IT 2524-64-3, Diphenyl chlorophosphate
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution of uracils with imidazole in presence of)

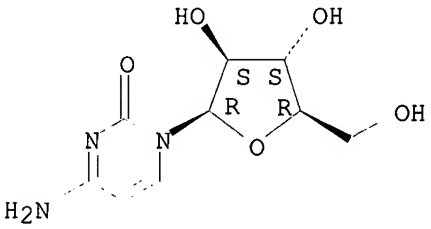
IT **4105-38-8 13030-62-1 14057-18-2**,
1-(2',3',5'-O-Triacetyl-.beta.-D-arabinofuranosyl)uracil
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(substitution reaction of, with imidazole)

IT **69-74-9P**, 1-(.beta.-D-Arabinofuranosyl)cytosine hydrochloride
3992-42-5P 7244-51-1P, Cytidine hydrochloride
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by substitution of uracils with imidazole)

RN 69-74-9 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl-, monohydrochloride (9CI) (CA INDEX NAME)

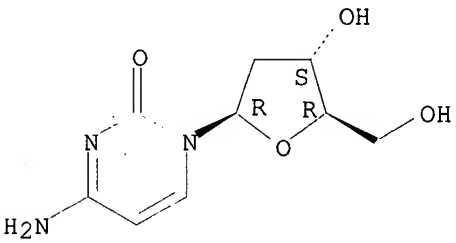
Absolute stereochemistry.



● HCl

RN 3992-42-5 HCAPLUS
CN Cytidine, 2'-deoxy-, monohydrochloride (8CI, 9CI) (CA INDEX NAME)

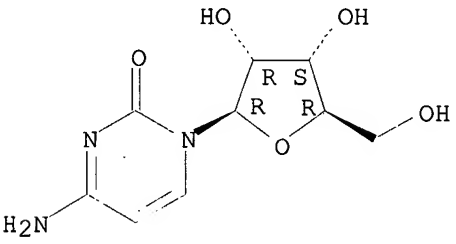
Absolute stereochemistry. Rotation (+).



● HCl

RN 7244-51-1 HCAPLUS
CN Cytidine, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

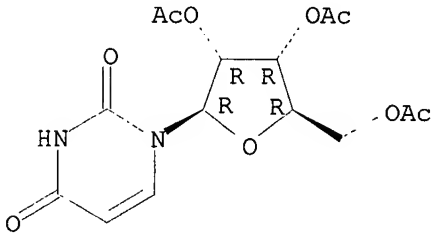


● HCl

IT **4105-38-8 13030-62-1 14057-18-2,**
1-(2',3',5'-O-Triacetyl-.beta.-D-arabinofuranosyl)uracil
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(substitution reaction of, with imidazole)

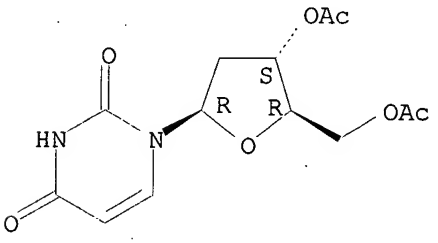
RN 4105-38-8 HCAPLUS
CN Uridine, 2',3',5'-triacetate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



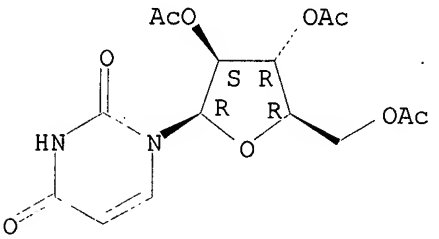
RN 13030-62-1 HCAPLUS
CN Uridine, 2'-deoxy-, 3',5'-diacetate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 14057-18-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

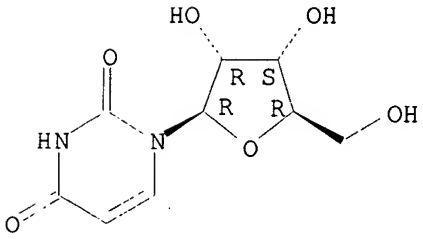
Absolute stereochemistry.



L75 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1989:439791 HCAPLUS
DN 111:39791
TI The oxidative chlorination of pyrimidine and purine bases, and nucleosides using acyl chloride-dimethylformamide-m-chloroperbenzoic acid system
AU Ryu, E. K.; Kim, J. N.
CS Div. Org. Chem., Korea Res. Inst. Chem. Technol., Daedeog-Danji, 300-31, S. Korea
SO Nucleosides & Nucleotides (**1989**), 8(1), 43-8 ← ?
CODEN: NUNUD5; ISSN: 0732-8311
DT Journal
LA English
CC 33-9 (Carbohydrates)

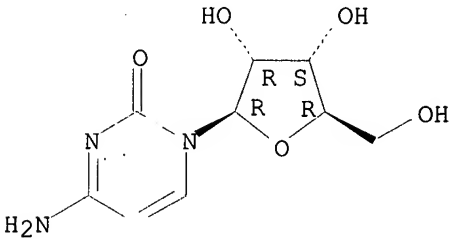
Section cross-reference(s): 28
OS CASREACT 111:39791
AB Pyrimidine and purine bases, and nucleosides were chlorinated by the reaction of acyl chloride in DMF with MCPBA under mild conditions in moderate yields.
ST oxidative chlorination pyrimidine purine nucleoside; acyl chloride oxidative chlorination
IT Chlorination
(of pyrimidine and purine bases and nucleosides using acyl chloride-dimethylformamide-chloroperbenzoic acid system)
IT Acid chlorides
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative chlorination of pyrimidine and purine bases and nucleosides with DMF, chloroperbenzoic acid, and)
IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(purine, oxidative chlorination of, using acyl chloride dimethylformamide-chloroperbenzoic acid system)
IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(pyrimidine, oxidative chlorination of, using acyl chloride dimethylformamide-chloroperbenzoic acid system)
IT 98-88-4, Benzoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative chlorination of pyrimidine and purine bases and nucleosides using DMF, chloroperbenzoic acid, and)
IT 75-36-5, Acetyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative chlorination of uracil by chloroperbenzoic acid and)
IT 120-73-0D, Purine, bases and nucleosides 289-95-2D, Pyrimidine, bases and nucleosides
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative chlorination of, using acyl chloride-dimethylformamide-chloroperbenzoic acid system)
IT 58-61-7, Adenosine, reactions **58-96-8**, Uridine **65-46-3**, Cytidine 66-22-8, 2,4(1H,3H)-Pyrimidinedione, reactions 71-30-7 73-24-5, 1H-Purin-6-**amine**, reactions **951-77-9** **951-78-0** 958-09-8
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(oxidative chlorination of, with acyl chloride-dimethylformamide-chloroperbenzoic acid system)
IT **50-90-8P** 1820-81-1P 2347-43-5P **2880-89-9P** **25130-29-4P** 28128-28-1P **32387-56-7P** 34408-14-5P 69260-67-9P 85562-55-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **58-96-8**, Uridine **65-46-3**, Cytidine **951-77-9** **951-78-0**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(oxidative chlorination of, with acyl chloride-dimethylformamide-chloroperbenzoic acid system)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



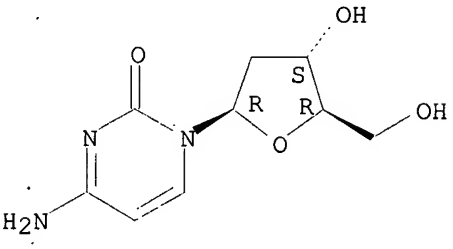
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



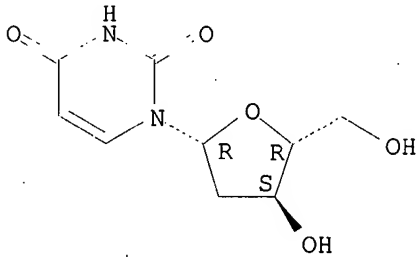
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

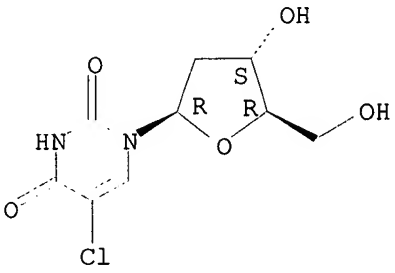
Absolute stereochemistry.



IT **50-90-8P 2880-89-9P 25130-29-4P**
32387-56-7P
RL: SPN (Synthetic preparation); PREP (Preparation)

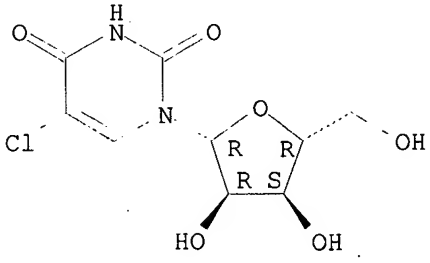
(prepn. of)
RN 50-90-8 HCAPLUS
CN Uridine, 5-chloro-2'-deoxy- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



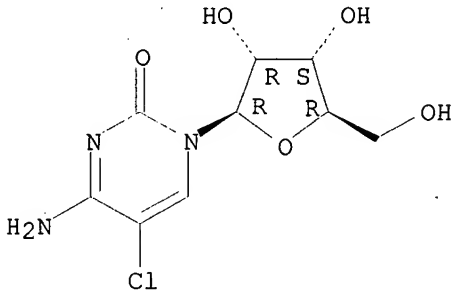
RN 2880-89-9 HCAPLUS
CN Uridine, 5-chloro- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



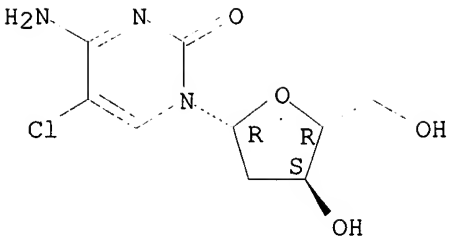
RN 25130-29-4 HCAPLUS
CN Cytidine, 5-chloro- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 32387-56-7 HCAPLUS
CN Cytidine, 5-chloro-2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1988:493540 HCAPLUS
DN 109:93540
TI Preparation of (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for DNA sequencing
IN Hobbs, Frank Worden, Jr.; Cocuzza, Anthony Joseph
PA du Pont de Nemours, E. I., and Co., USA
SO Eur. Pat. Appl., 40 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07D403-04
ICS C07D471-04; C07H019-14; C07H019-073; C07D239-54
ICI C07D471-04, C07D239-00, C07D209-00
CC 33-9 (Carbohydrates)
Section cross-reference(s): 9
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 251786	A2	19880107	EP 1987-305844	19870701 <--
	EP 251786	A3	19891206		
	EP 251786	B1	19941130		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 5047519	A	19910910	US 1987-57565	19870612 <--
	CA 1340022	A1	19980901	CA 1987-540946	19870630 <--
	DK 8703375	A	19880103	DK 1987-3375	19870701 <--
	NO 8702757	A	19880104	NO 1987-2757	19870701 <--
	NO 171981	B	19930215		
	NO 171981	C	19930526		
	ES 2066760	T3	19950316	ES 1987-305844	19870701 <--
	JP 63152364	A2	19880624	JP 1987-166224	19870702 <--
	JP 08005908	B4	19960124		
	JP 09124636	A2	19970513	JP 1996-221531	19870702 <--
	JP 10158530	A2	19980616	JP 1997-304768	19870702 <--
	US 5151507	A	19920929	US 1991-713906	19910612 <--
	DK 9300819	A	19930707	DK 1993-819	19930707 <--
	DK 9300820	A	19930707	DK 1993-820	19930707 <--
	US 5625081	A	19970429	US 1994-181284	19940113 <--
	US 5558991	A	19960924	US 1994-192915	19940207 <--
	US 5608063	A	19970304	US 1995-412409	19950328 <--

PRAI	US 1986-881372	19860702	<--
	US 1987-57565	19870612	<--
	US 1987-57566	19870612	<--
	JP 1994-119539	19870702	<--
	JP 1996-221531	19870702	<--
	US 1991-780346	19911022	<--
	US 1991-780347	19911022	<--
	US 1992-981148	19921124	<--
	US 1993-981026	19930217	<--
	US 1994-181358	19940113	<--

OS MARPAT 109:93540
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I-IV; R = H, NH2; R1 = R2R3NZC.tplbond.C; R2, R3 = H, C1-4 alkyl, protecting group; R4 = sugar moiety Q, Q1, ether moiety Q2; R5 = H, (HO)2P(O), H3P2O6, H4P3O9; when R7 = R8 = H, then R6 = H, OH, F, NH2, N3; when R7 = H, R8 = OH, then R6 = H, OH; when R7 = OH, R8 = H, then R6 = OH; Z = diradical moiety of 1-20 atoms] and their salts were prepd. for coupling with fluorescent dyes to prep. fluorescent chain terminators for DNA sequencing. 6-Methoxy-2-(methylthio)-9-(2,3-dideoxy-5-O-trityl-.beta.-D-ribofuranosyl)-7-deazapurine, prepd. in 5 steps from 6-methoxy-2-(methylthio)-7-deazapurine, was iodinated by treatment with N-iodosuccinimide and the 7-iodo deriv. was de-O-methylated, oxidized to the sulfoxide and ammonolyzed, and detritylated to give azaguanosine IV (R = NH2, R1 = iodo, R4 = Q, R5-R8 = H). This was coupled with HC.tplbond.CCH2NHCOCF3 in the presence of (Ph3P)4Pd/CuI catalyst and the product converted to the triphosphate and deprotected to give IV (R = NH2, R1 = H2NCH2C.tplbond.C, R4 = Q, R5 = H4P3O9, R6-R8 = H). This was condensed with a xanthene deriv. (prepn. given) to give fluorescent chain terminator V.

ST aminoalkynylnucleotide intermediate chain terminator DNA sequencing; nucleotide aminoalkynyl; fluorescent chain terminator DNA sequencing

IT Coupling reaction catalysts
(cuprous iodide and palladium phosphine complexes, for iodonucleoside bases with alkynylamines)

IT Deoxyribonucleic acid sequences
(detn. of, (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for)

IT Nucleotides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(deoxyribo-, aminoalkynyl-, prepn. of, as intermediates for fluorescent chain terminators for DNA sequencing)

IT 516-12-1, N-Iodosuccinimide 7790-99-0, Iodine monochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(iodination by, of nucleoside bases)

IT 14719-21-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and coupling of, with iodonucleosides, catalysts for)

IT 115899-58-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent chain terminator for DNA sequencing)

IT 496-73-1P **611-53-0P** 634-65-1P 6248-20-0P 15252-44-5P, 4-Pentyn-1-**amine** 18202-10-3P, 11-Dodecyn-1-ol 40627-30-3P
54384-05-3P 64702-16-5P 71084-07-6P 88499-44-9P 96027-44-0P
97337-37-6P 97481-18-0P 98891-39-5P 98891-40-8P 98921-75-6P
105784-83-6P 114748-39-9P 114748-40-2P 114748-41-3P 114748-42-4P
114748-43-5P 114748-44-6P 114748-45-7P 114748-46-8P 114748-47-9P
114748-48-0P 114748-49-1P 114748-50-4P 114748-51-5P 114748-52-6P
114748-53-7P 114748-54-8P 114748-55-9P 114748-56-0P 114748-57-1P
114748-58-2P 114748-59-3P 114748-60-6P 114748-61-7P 114748-62-8P
114748-63-9P 114748-64-0P 114748-65-1P 114748-66-2P 114748-67-3P
114748-68-4P 114748-69-5P 114748-70-8P 114748-71-9P 114748-73-1P
114748-76-4P 115899-24-6P 115899-25-7P 115899-26-8P 115899-27-9P
115899-28-0P 115899-29-1P 115899-30-4P 115899-31-5P 115899-32-6P
115899-33-7P 115899-34-8P 115899-35-9P 115899-36-0P 115899-37-1P
115899-38-2P 115899-39-3P 115899-40-6P 115899-41-7P 115899-42-8P
115899-43-9P 115899-44-0P 115899-45-1P 115899-46-2P 115899-47-3P

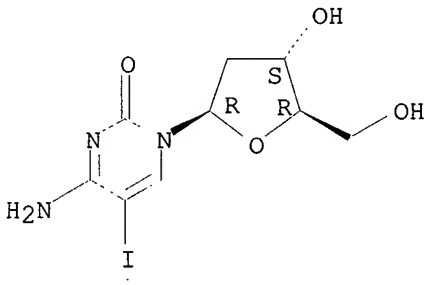
115899-48-4P 115899-49-5P 115899-50-8P 115899-51-9P 115899-52-0P
115899-53-1P 115899-54-2P 115899-55-3P 115899-56-4P 115899-57-5P
115899-59-7P 115899-60-0P 115920-24-6P 115920-25-7P 115944-91-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent chain terminator intermediate, for DNA sequencing)

IT **54-42-2**, 5-Iodo-2'-deoxyuridine 69-33-0, Tubercidin 93-61-8, N-Methylformanilide 95-01-2, 2,4-Dihydroxybenzaldehyde 102-82-9 108-30-5, Succinic anhydride, reactions 108-46-3, Resorcinol, reactions 354-38-1, 2,2,2-Trifluoroacetamide 431-47-0, Methyl trifluoroacetate 608-25-3, 2-Methylresorcinol **951-77-9**, 2'-Deoxycytidine 2450-71-7, Propargylamine 3601-89-6 5983-09-5 6066-82-6, N-Hydroxysuccinimide 6867-30-7 7481-89-2, 2',3'-Dideoxycytidine 7722-88-5, Tetrasodium pyrophosphate 13464-19-2, Phenyl chlorothioformate 14267-92-6, 5-Chloro-1-pentyne 29877-76-7 40635-67-4 51795-88-1 54384-06-4 68724-12-9, 1-[(2-Hydroxyethoxy)methyl]cytosine 91713-43-8 91713-44-9
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, in prepn. of fluorescent chain terminators for DNA sequencing)

IT **611-53-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent chain terminator intermediate, for DNA sequencing)

RN 611-53-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-iodo- (7CI, 8CI, 9CI) (CA INDEX NAME)

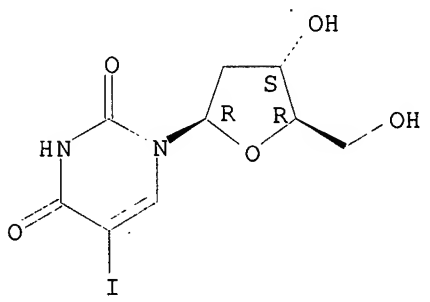
Absolute stereochemistry.



IT **54-42-2**, 5-Iodo-2'-deoxyuridine **951-77-9**, 2'-Deoxycytidine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, in prepn. of fluorescent chain terminators for DNA sequencing)

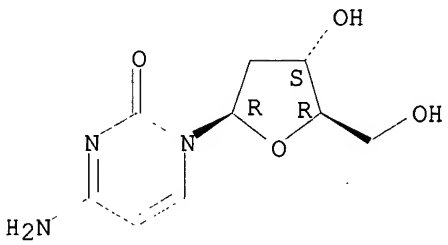
RN 54-42-2 HCAPLUS
CN Uridine, 2'-deoxy-5-iodo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L75 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1988:112894 HCAPLUS
DN 108:112894
TI Pyridopyrimidine nucleotide derivatives
IN Inoue, Hideo; Ohtsuka, Eiko; Imura, Akihiro; Masuda, Kenichi; Kamimura, Takashi
PA Teijin Ltd. , Japan
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM C07H019-04
ICS C07H021-00
ICA G01N021-75; G01N033-50; G01N033-58; G01N033-68; C12Q001-68; C12N015-00
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1, 9
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	WO 8701373	A1	19870312		WO 1986-JP441	19860828	<--
	W: JP, US						
	RW: CH, DE, FR, GB						
	EP 235301	A1	19870909		EP 1986-905396	19860828	<--
	EP 235301	B1	19920722				
	R: CH, DE, FR, GB, LI						
	JP 07025788	B4	19950322		JP 1986-504618	19860828	<--
	US 4965350	A	19901023		US 1989-351317	19890511	<--
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	US 1987-54910		19870511	<--			

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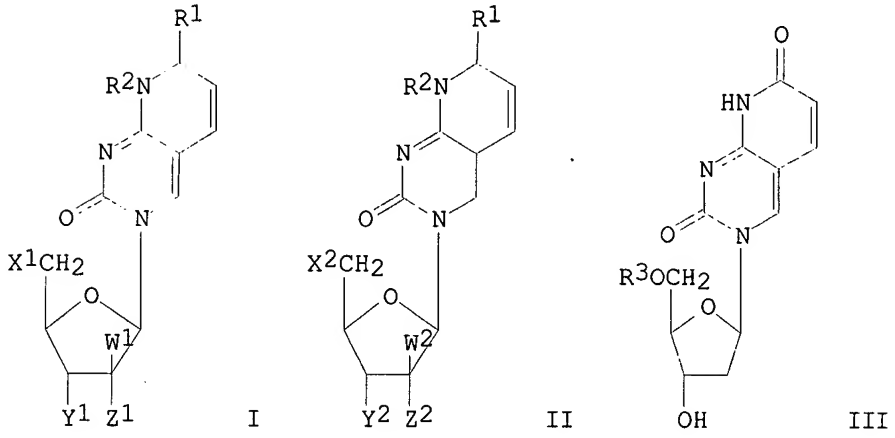


I II III

AB Fluorescent pyridopyrimidine nucleotide derivs. [I; X1, Y1 = HO[P(O)(OH)O]n, where n = 0-3; however, n cannot be 0 for both X1 and Y1; Z1 = HO[P(O)(OH)O]m, where m = 0-3; W1 = H, OH; when R1 = amino, halo, R1R2 = bond; when R2 = H, alkyl, R1 = O] and II [X2 = HO[P(O)(OH)O].dwnarw.r (r = 0-3), etc.; Y2, Z2 = O, H, OH, etc.; W2 = H, OH] are prepd. for DNA probes. 3-.beta.-D-Deoxyribofuranosyl-2,7-dioxopyrido[2,3-d]pyrimidine (III, R3 = H) in (EtO)3P(O) was treated with POCl3 at 0.degree. for 6 h to give, after hydrolysis, the 5'-phosphate [III, R3 = (HO)2P(O)], which was condensed with the appropriate nucleotides by the solid-phase method to give dodecanucleotides, e.g., dGGGAAFTTTCCC (F = fluorescent nucleotide), which were useful as DNA probes.

ST pyridopyrimidine nucleotide deriv prepn DNA probe; fluorescent pyridopyrimidine nucleotide deriv

IT Deoxyribonucleic acids
RL: RCT (Reactant); RACT (Reactant or reagent)
(probe, synthesis of fluorescent oligonucleotides for)

IT **65-46-3 951-77-9**
RL: PROC (Process)
(conversion of, into cytidinylmercury chloride)

IT 107-13-1, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyanovinylation by, of iododeoxyuridine)

IT **54-42-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(cyanovinylation of)

IT 96-33-3D, palladium complex 7440-05-3D, Me acrylate complex
RL: RCT (Reactant); RACT (Reactant or reagent)
(methoxycarbonylvinylation by, of cytidinylmercury chloride)

IT 96-33-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(methoxycarbonylvinylation by, of iododeoxyuridine)

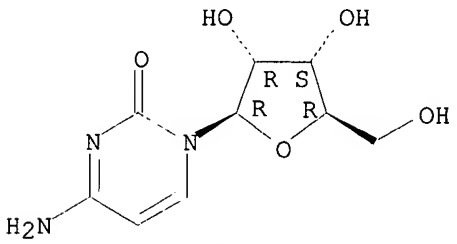
IT 80173-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acetylation of)

IT 113295-55-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of)

IT 113295-52-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

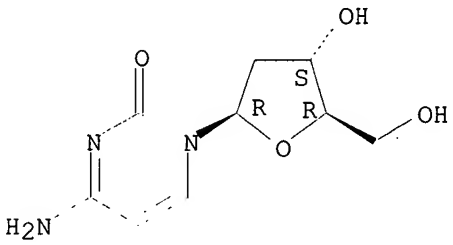
(prepn. and chlorination of)
IT 113295-53-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)
IT 65523-07-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and methoxycarbonylvinylation of)
IT **147-94-4P** 81206-83-9P 99517-98-3P 113295-47-9P
113295-50-4P 113295-51-5P 113321-13-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and phosphorylation of)
IT 81244-97-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and photochem. cyclization of)
IT 113295-56-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and photochem. decyanovinylation of)
IT 99517-99-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with chloro(diisopropylamino)methoxyphosphine)
IT 99518-04-4P 99518-06-6P 99518-08-8P 99533-62-7P 113295-46-8P
113295-48-0P 113295-49-1P 113295-54-8P 113295-57-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for DNA probe)
IT 86030-43-5, Chloro(diisopropylamino)methoxyphosphine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with protected deoxyribofuranosyldioxopyridopyrimidine)
IT **65-46-3 951-77-9**
RL: PROC (Process)
(conversion of, into cytidinylmercury chloride)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



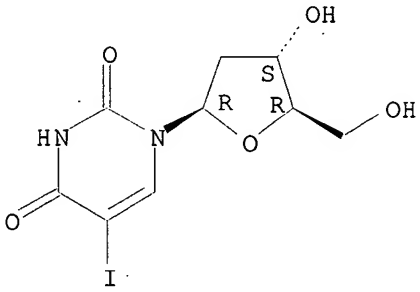
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



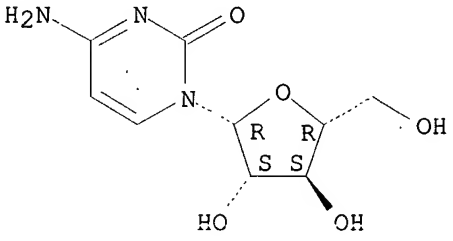
IT **54-42-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(cyanovinylation of)
RN 54-42-2 HCAPLUS
CN Uridine, 2'-deoxy-5-iodo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **147-94-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and phosphorylation of)
RN 147-94-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:637192 HCAPLUS
DN 107:237192
TI Pyridyl groups for protection of the imide functions of uridine and guanosine. Exploration of their displacement reactions for site-specific modifications of uracil and guanine bases
AU Zhou, X. X.; Welch, C. J.; Chattopadhyaya, J.
CS Biomed. Cent., Uppsala Univ., Uppsala, S-751 23, Swed.
SO Acta Chemica Scandinavica, Series B: Organic Chemistry and Biochemistry (

1986), B40(10), 806-16
CODEN: ACBOCV; ISSN: 0302-4369
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 107:237192
AB For the protection of the O-4 function of uridine and the O-6 of guanosine, 2-, 3- and 4-hydroxopyridines, 2-pyridinethiol, 6-methyl-2-hydroxy- and 6-methyl-3-hydroxypyridines were employed. These substituted pyridines gave pyridyl-N- and/or pyridyl-O-substituted derivs., depending both upon the position of the hydroxyl and Me groups in the pyridine ring, at the C-4 and the C-6 of the uracil and guanine residues, resp. These groups were good leaving groups for nucleophilic substitution reactions by **amines**, thiolates and oximate. If needed, the rate of these substitution reactions could be conveniently increased by almost 1000-fold by conversion of the pyridyl moiety to its methiodide.
ST pyridyl group protection uridine guanosine; nucleophilic substitution uridine guanosine
IT Substitution reaction, nucleophilic
(of pyridyl derivs. of uridine and guanosine)
IT Protective groups
(substituted pyridyl, for imide functions of uridine and guanosine)
IT 108782-91-8P **111426-23-4P** 111426-24-5P 111426-25-6P
111426-26-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deprotection of)
IT **4105-38-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction of, with pyridine derivs.)
IT 108324-68-1P 108324-69-2P 108324-70-5P 108324-71-6P
108324-74-9P 108324-75-0P 108324-77-2P 108324-78-3P
108324-80-7P 108348-48-7P 111426-27-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of)
IT **10578-79-7P 98222-28-7P** 99519-13-8P 108324-72-7P
108324-73-8P 111426-18-7P 111426-19-8P
111426-20-1P 111426-21-2P 111426-22-3P 111426-28-9P
111426-29-0P 111426-30-3P 111426-31-4P 111426-32-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **65-46-3P**, Cytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from uridine)
IT 85078-95-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., trimethylsilylation, and reaction with pyridine deriv.)
IT 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions
506-59-2, Dimethylamine hydrochloride 593-51-1, Methylamine hydrochloride 5680-79-5, Glycine methyl ester hydrochloride 5680-80-8
37602-52-1 86175-49-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with uridine deriv.)
IT 108-96-3, 4-Pyridone 109-00-2, 3-Pyridinol 142-08-5, 2-Pyridone
1121-78-4, 6-Methyl-3-pyridinol 2637-34-5 3279-76-3,
6-Methyl-2-pyridone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with uridine or guanosine derivs.)
IT 69304-38-7

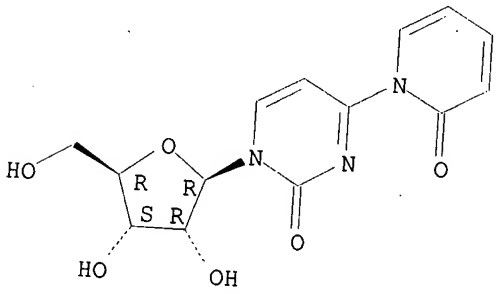
RL: RCT (Reactant); RACT (Reactant or reagent)
(trimethylsilylation of, for reaction with substituted pyridines)

IT **58-96-8**, Uridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(O-acetylation of)

IT **111426-23-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deprotection of)

RN 111426-23-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(2-oxo-1(2H)-pyridinyl)-1-.beta.-D-ribofuranosyl- (9CI) (CA INDEX NAME)

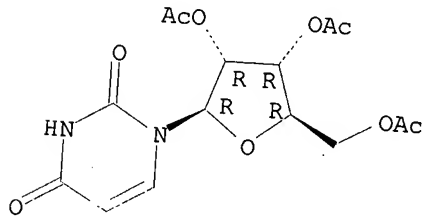
Absolute stereochemistry.



IT **4105-38-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction of, with pyridine derivs.)

RN 4105-38-8 HCAPLUS
CN Uridine, 2',3',5'-triacetate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

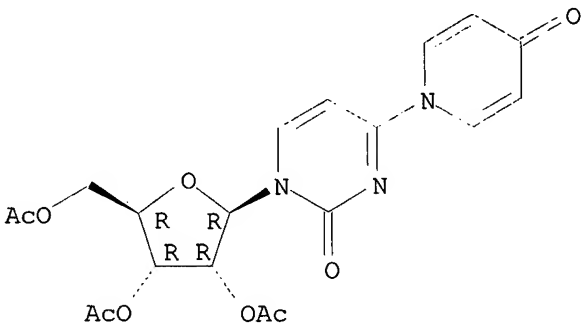
Absolute stereochemistry.



IT **108324-74-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of)

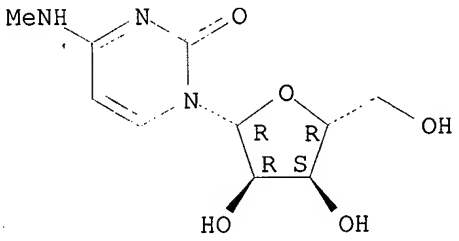
RN 108324-74-9 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(4-oxo-1(4H)-pyridinyl)-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



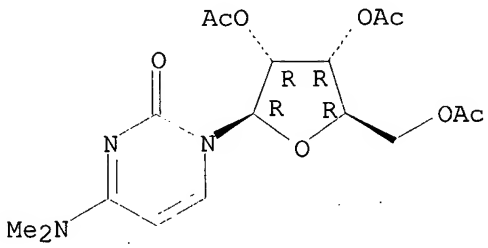
IT **10578-79-7P 98222-28-7P 108324-73-8P**
111426-18-7P 111426-19-8P 111426-20-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 10578-79-7 HCAPLUS
CN Cytidine, N-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



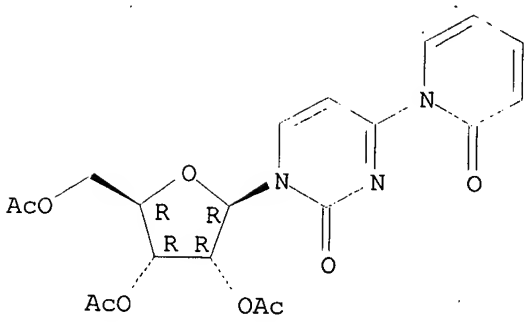
RN 98222-28-7 HCAPLUS
CN Cytidine, N,N-dimethyl-, 2',3',5'-triacetate (7CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



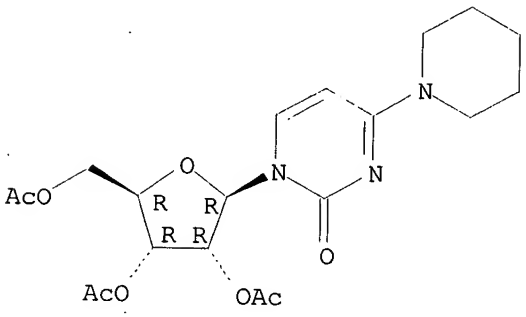
RN 108324-73-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(2-oxo-1(2H)-pyridinyl)-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



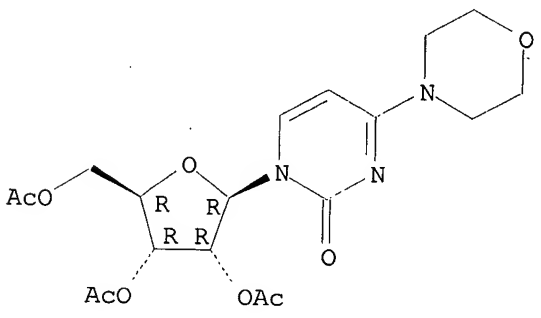
RN 111426-18-7 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(1-piperidinyl)-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



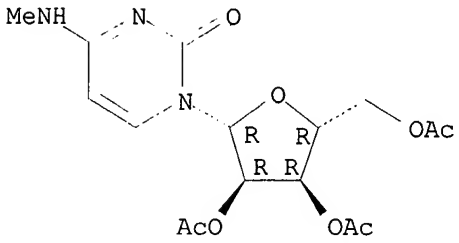
RN 111426-19-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(4-morpholinyl)-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



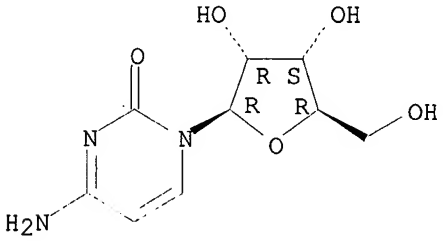
RN 111426-20-1 HCAPLUS
CN Cytidine, N-methyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



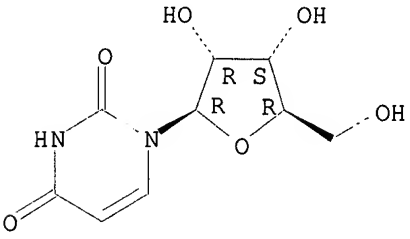
IT **65-46-3P**, Cytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from uridine)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **58-96-8**, Uridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(O-acetylation of)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:534617 HCAPLUS
DN 107:134617
TI Hybridization triggered cross-linking of deoxyoligonucleotides
AU Webb, Thomas R.; Matteucci, Mark D.
CS Dep. Mol. Biol., Genentech, Inc., San Francisco, CA, 94080, USA
SO Nucleic Acids Research (**1986**), 14(19), 7661-74
CODEN: NARHAD; ISSN: 0305-1048
DT Journal
LA English
CC 33-10 (Carbohydrates)
Section cross-reference(s): 6

AB Oligodeoxynucleotides contg. the modified base 5-methyl-N4,N4-ethanocytosine (Ce) were prepd. on polymer support. The 9-fluorenylmethoxycarbonyl group was used as a protecting group for the exocyclic **amines** of dA and dC. This group can be removed rapidly under very mild conditions. Oligomers contg. the Ce base form a cross-link when hybridized to their complementary deoxyoligonucleotides. Some of the scope and limitations of these cross-link forming oligonucleotides are reported.

ST deoxyoligonucleotide prepn hybridization crosslinking; nucleotide oligodeoxy prepn hybridization crosslinking; ethanocytosine oligodeoxynucleotide; protective group fluorenylmethoxycarbonyl nucleotide

IT Crosslinking
(of deoxyoligonucleotides, hybridization triggered)

IT Protective groups
((fluorenylmethoxy)carbonyl, for exocyclic amino group of deoxyadenosine and deoxycytidine, in synthesis of oligodeoxynucleotides)

IT Nucleotides, polymers
RL: RCT (Reactant); RACT (Reactant or reagent)
(oligo-, deoxy-, hybridization triggered cross-linking of)

IT Nucleotides, polymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(oligo-, deoxyribo-, prepn. of, contg. methylethanocytosine)

IT **951-77-9**, 2'-Deoxycytidine
RL: RCT (Reactant); RACT (Reactant or reagent)
((fluorenylmethoxy)carbonylation and dimethoxytritylation of, for synthesis of oligodeoxynucleotides)

IT 87424-19-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dimethoxytritylation of, for synthesis of oligodeoxynucleotides)

IT **80991-40-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with aminoethanol)

IT **109389-24-4P 109389-25-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with aziridine)

IT 110071-17-5P 110341-91-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with deoxyoligonucleotides)

IT 109489-08-9P 109489-09-0P 109489-10-3P 109489-11-4P 109489-12-5P
109489-13-6P 109489-14-7P 109489-15-8P 109489-16-9P 109489-17-0P
109489-18-1P 109523-81-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with oligodeoxynucleotide contg. modified base methylethanocytosine)

IT 101712-10-1P 109389-29-9P 109389-31-3P 109489-06-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **109389-26-6P 109389-27-7P 109389-28-8P**
109389-32-4P 109389-33-5P 109420-85-1P 109420-86-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for synthesis of oligodeoxynucleotides)

IT **50-89-5**, Thymidine, reactions **951-78-0**, 2'-Deoxyuridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with (dimethylamino)trimethylsilane and phosphoryl tristriazolide)

IT 72741-18-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with deoxyribonucleosides)

IT **40733-26-4** 98796-51-1 109389-30-2
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with phosphoryl tristriazolide)

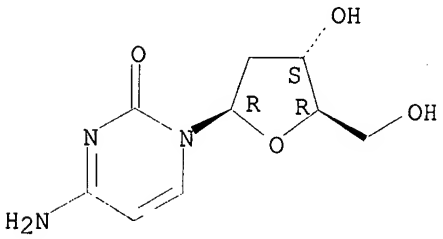
IT 141-43-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with triazolyldeoxyribonucleoside)

IT 151-56-4, Aziridine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with triazolyldeoxyribonucleosides)

IT **951-77-9**, 2'-Deoxycytidine
RL: RCT (Reactant); RACT (Reactant or reagent)
((fluorenylmethoxy)carbonylation and dimethoxytritylation of, for synthesis of oligodeoxynucleotides)

RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

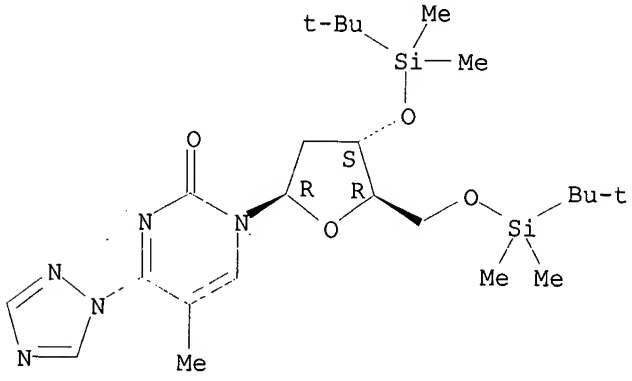
Absolute stereochemistry. Rotation (+).



IT **80991-40-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with aminoethanol)

RN 80991-40-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-[2-deoxy-3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-erythro-pentofuranosyl]-5-methyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

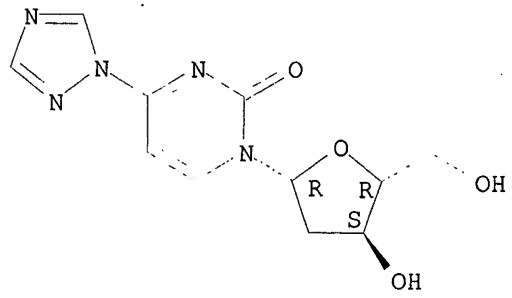


IT **109389-24-4P 109389-25-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with aziridine)

RN 109389-24-4 HCAPLUS

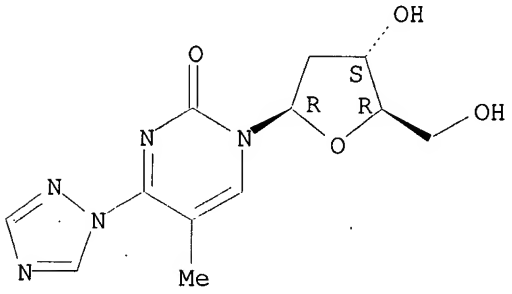
CN 2(1H)-Pyrimidinone, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



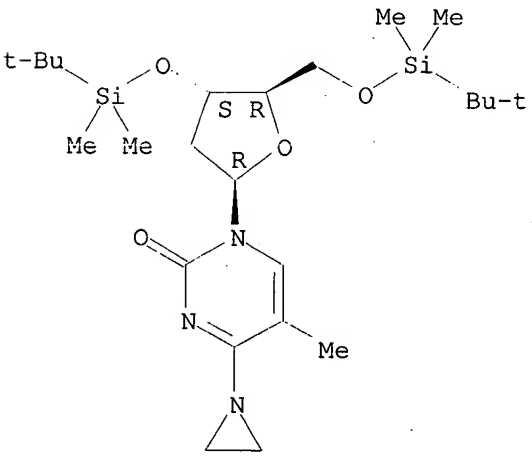
RN 109389-25-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-5-methyl-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



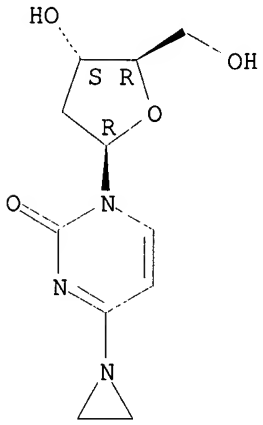
IT **109389-26-6P 109389-27-7P 109389-28-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for synthesis of oligodeoxynucleotides)
RN 109389-26-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(1-aziridinyl)-1-[2-deoxy-3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-erythro-pentofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



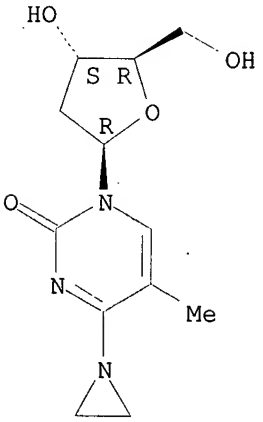
RN 109389-27-7 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(1-aziridinyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



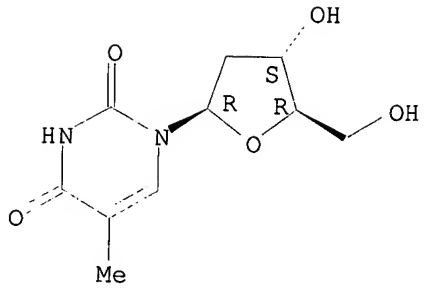
RN 109389-28-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(1-aziridinyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



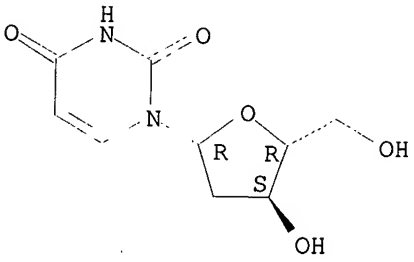
IT **50-89-5**, Thymidine, reactions **951-78-0**, 2'-Deoxyuridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with (dimethylamino)trimethylsilane and phosphoryl tristriazolide)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



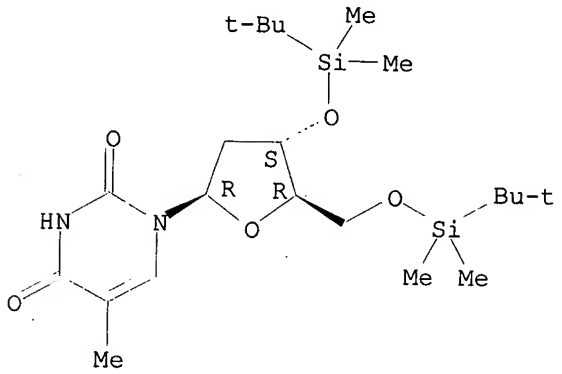
RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **40733-26-4**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with phosphoryl tristriazolide)
RN 40733-26-4 HCAPLUS
CN Thymidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:214307 HCAPLUS
DN 106:214307
TI Conversion of uracil derivatives to cytosine derivatives
IN Kawada, Mitsuru; Matsumoto, Kiyoharu; Tsurushima, Masaaki
PA Takeda Chemical Industries, Ltd., Japan
SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW
DT Patent
LA English
IC ICM C07H019-06
CC 33-9 (Carbohydrates)
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
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	EP 204264	A3	19880107				
	EP 204264	B1	19900816				
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	US 4754026	A	19880628		US 1986-866960	19860527	<--
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	CN 1012367	B	19910417				
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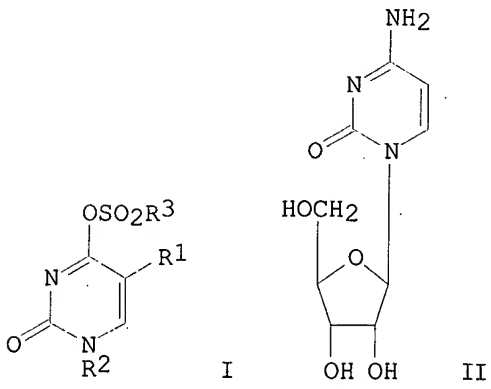
OS CASREACT 106:214307
GI



I II

AB O-Sulfonated uracils I (R1 = H, alkyl, alkoxy, halo; R2 = protected glycosyl; R3SO2 = org. sulfonyl group) were prepd. by treating the corresponding protected uracils with R3SO2X (X = halo) in an org. solvent at 0-150.degree. in the presence of K2CO3. Aminolysis of I with NH3 or primary **amines** gave cytosines, intermediates for pharmaceuticals such as citicoline (no data). 2',3',5'-Tri-O-acetyluridine was stirred at 80.degree. in MeCOCH2CHMe2 with 4-MeC6H4SO2Cl and K2CO3 to give 97.7% I (R1 = H, R2 = 2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl, R3 = 4-MeC6H4). This was allowed to stand overnight at room temp. in MeOH/concd. aq. NH3 to give 91.4% cytidine (II).

ST uridine sulfonylation aminolysis; phenylsulfonyluracil aminolysis; cytidine

IT 64-04-0, Phenethylamine 123-75-1, Pyrrolidine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(aminolysis by, of O-sulfonylated uridine deriv.)

IT 7664-41-7, Ammonia, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(aminolysis by, of O-sulfonylated uridines)

IT 108273-53-6P 108273-54-7P 108273-55-8P 108273-56-9P 108273-57-0P
108273-58-1P 108273-59-2P 108273-60-5P 108273-61-6P 108273-62-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and aminolysis-deprotection of)

IT **147-94-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by sulfonylation-aminolysis of arabinofuranosyluracil deriv.)

IT **65-46-3P**, Cytidine **951-77-9P**, 1-(2'-Deoxy-.beta.-D-ribofuranosyl)cytosine **2140-61-6P**, 5-Methylcytidine **2341-22-2P**, 5-Fluorocytidine **29834-86-4P**, N,N-Tetramethylenecytidine 108273-51-4P, N-(2-Phenylethyl)cytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by sulfonylation-aminolysis of uridine deriv.)

IT 98-68-0, 4-Methoxybenzenesulfonyl chloride 773-64-8, 2,4,6-Trimethylbenzenesulfonyl chloride 6553-96-4, 2,4,6-Triisopropylbenzenesulfonyl chloride 52499-94-2, Pentamethylbenzenesulfonyl chloride 55661-08-0, 4-Methoxy-2,6-dimethylbenzenesulfonyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(O-acylation by, of protected uridine deriv.)

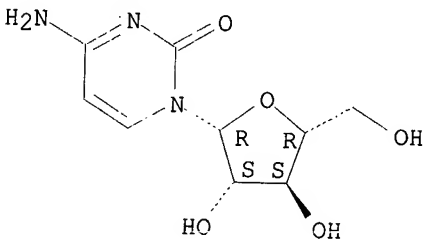
IT 80745-07-9, 4-Methoxy-2,3,6-trimethylbenzenesulfonyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(O-acylation by, of protected uridines)

IT **4105-38-8**, 2',3',5'-Tri-O-acetyluridine **4336-39-4**, 2',3',5'-Tri-O-acetyl-5-methyluridine **13030-62-1**, 1-(3',5'-Di-O-acetyl-2'-deoxy-.beta.-D-ribofuranosyl)uridine **14057-18-2**, 1-(2',3',5'-Tri-O-acetyl-.beta.-D-arabinofuranosyl)uracil **55474-11-8**, 2',3',5'-Tri-O-acetyl-5-fluorouridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(O-sulfonylation of)

IT **147-94-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by sulfonylation-aminolysis of arabinofuranosyluracil deriv.)

RN 147-94-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl- (9CI) (CA INDEX NAME)

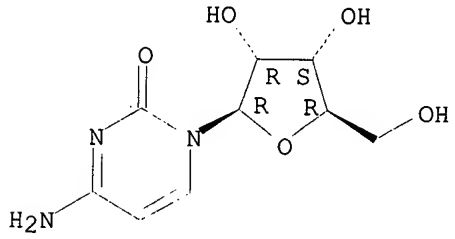
Absolute stereochemistry.



IT **65-46-3P**, Cytidine **951-77-9P**, 1-(2'-Deoxy-.beta.-D-ribofuranosyl)cytosine **2140-61-6P**, 5-Methylcytidine **2341-22-2P**, 5-Fluorocytidine **29834-86-4P**, N,N-Tetramethylenecytidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by sulfonylation-aminolysis of uridine deriv.)

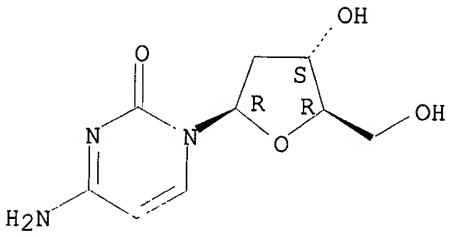
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



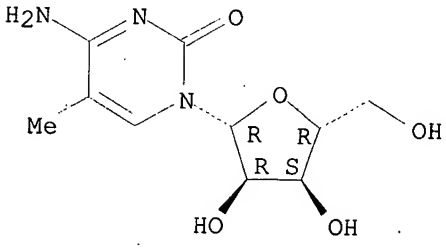
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



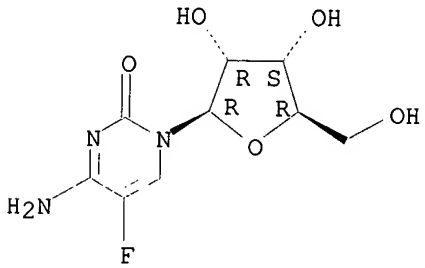
RN 2140-61-6 HCAPLUS
CN Cytidine, 5-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2341-22-2 HCAPLUS
CN Cytidine, 5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

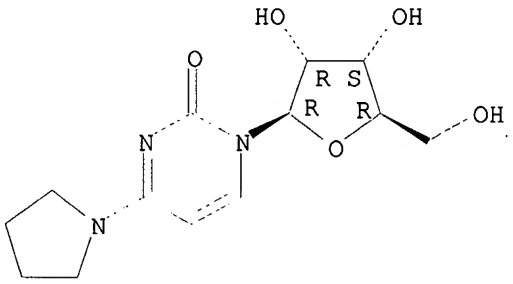
Absolute stereochemistry.



RN 29834-86-4 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-(1-pyrrolidinyl)-1-.beta.-D-ribofuranosyl- (8CI, 9CI) (CA INDEX NAME)

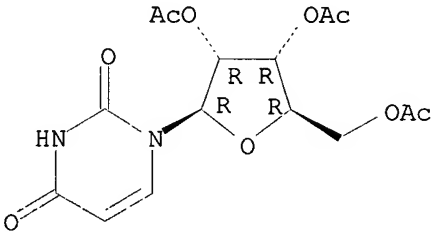
Absolute stereochemistry.



IT **4105-38-8**, 2',3',5'-Tri-O-acetyluridine **4336-39-4**, 2',3',5'-Tri-O-acetyl-5-methyluridine **13030-62-1**, 1-(3',5'-Di-O-acetyl-2'-deoxy-.beta.-D-ribofuranosyl)uridine **14057-18-2**, 1-(2',3',5'-Tri-O-acetyl-.beta.-D-arabinofuranosyl)uracil **55474-11-8**, 2',3',5'-Tri-O-acetyl-5-fluorouridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(O-sulfonylation of)

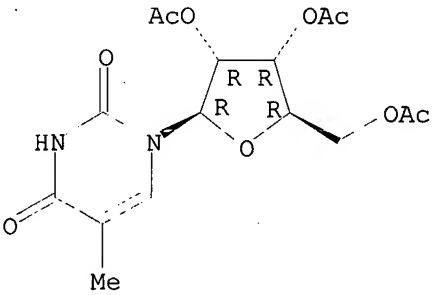
RN 4105-38-8 HCAPLUS
CN Uridine, 2',3',5'-triacetate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



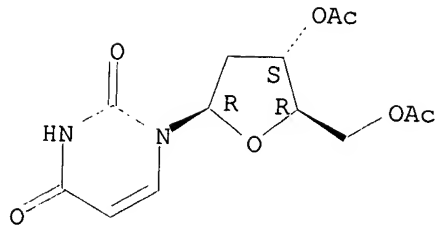
RN 4336-39-4 HCAPLUS
CN Uridine, 5-methyl-, 2',3',5'-triacetate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



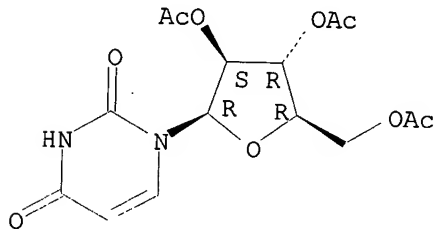
RN 13030-62-1 HCAPLUS
CN Uridine, 2'-deoxy-, 3',5'-diacetate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



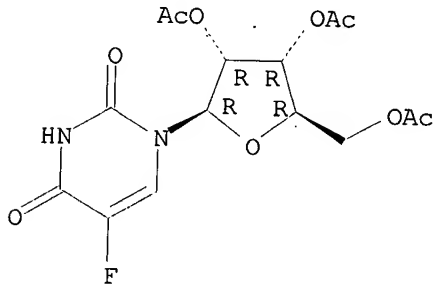
RN 14057-18-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 55474-11-8 HCAPLUS
CN Uridine, 5-fluoro-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1986:572942 HCAPLUS
DN 105:172942
TI Syntheses of fluorine containing nuclesides and nucleobases
AU Takahara, Takao; Hisanaga, Yorihito
CS Daikin Ind., Ltd., Settsu, 566, Japan
SO Nippon Kagaku Kaishi (**1985**), (10), 2034-9
CODEN: NKAKB8; ISSN: 0369-4577
DT Journal
LA Japanese
CC 33-9 (Carbohydrates)
OS CASREACT 105:172942
AB Reaction of elemental F with the uracil ring systems in AcOH proceeds via 5,6-difluoro adducts (2 cis-isomers), which were converted to 4 isomer adducts by subsequent solvolysis. Time course adducts were traced by

19F-NMR, but in the case of the cytosine ring systems, the adducts were not detected. The adducts of uridine were converted to stable 6-alkoxy forms and then sepd. 5-Fluorouracil (I), 5-fluorouridine (II), and 2',3'-O-isopropylidene-5'-deoxy-5-fluorouridine (III) were obtained in good yield by fluorination in HF for I and in AcOH for II and III, resp., followed by treatment with HF or an **amine**. Protected uridines were used as starting materials for II and III. 5-Fluorocytosine and 5-fluorocytidine were also obtained in good yield using HF and AcOH-HF mixt., resp., as a solvent for the fluorination.

ST nucleoside fluorination

IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorination of, by hydrofluoric acid or by hydrofluoric acid-acetic acid)

IT Fluorination
(of nucleosides and nucleoside bases by hydrofluoric acid or by hydrofluoric acid-acetic acid)

IT **65-46-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorination of, by acetic acid-hydrogen fluoride)

IT 66-22-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorination of, by hydroflouric acid)

IT **58-96-8** 22314-42-7
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(fluorination of, by hydrofluoric acid-acetic acid)

IT 71-30-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorination of, by hydrogen fluoride)

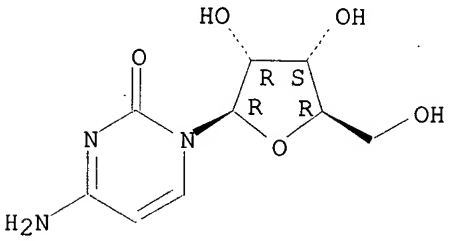
IT 51-21-8P **316-46-1P** 2022-85-7P **2341-22-2P**
66335-39-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **65-46-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorination of, by acetic acid-hydrogen fluoride)

RN 65-46-3 HCAPLUS

CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

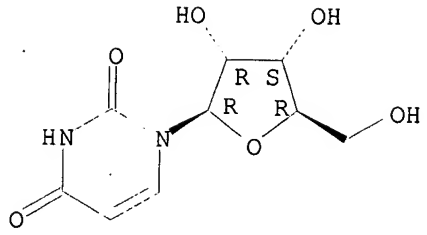


IT **58-96-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(fluorination of, by hydrofluoric acid-acetic acid)

RN 58-96-8 HCAPLUS

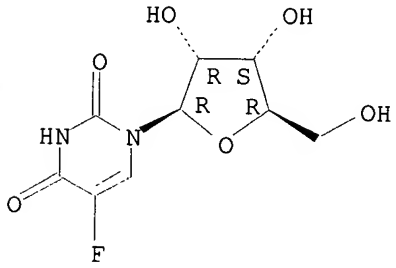
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



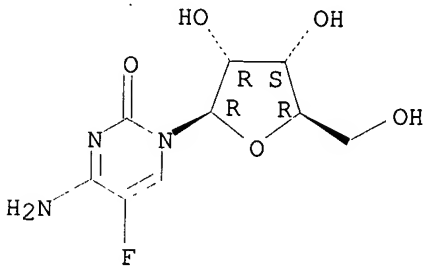
IT **316-46-1P 2341-22-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 316-46-1 HCAPLUS
CN Uridine, 5-fluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



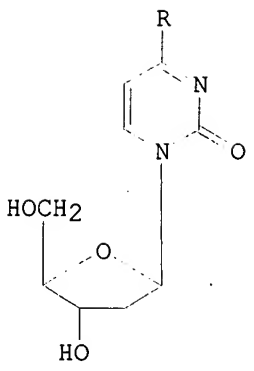
RN 2341-22-2 HCAPLUS
CN Cytidine, 5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1986:497860 HCAPLUS
DN 105:97860
TI Synthesis of N4-mono- and dialkyl-2'-deoxycytidines and their insertion into an oligonucleotide
AU Kraszewski, A.; Delort, A. M.; Teoule, R.
CS Dep. Rech. Fond., Cent. Etud. Nucl. Grenoble, Grenoble, F-38041, Fr.
SO Tetrahedron Letters (**1986**), 27(7), 861-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 105:97860

GI



I

AB Treatment of 3',5'-di-O-acetyl-4-thio-2'-deoxyuridine with mono or dialkylamines in EtOH gave 11 title deoxycytidines I (R = MeNH, Me2CHNH, Me2N, Et2N, piperidino, etc.). I (R = MeNH) was incorporated into the oligonucleotide chain d(CGm4CGCG).

ST deoxycytidine alkyl dialkyl; cytidine deoxy alkyl dialkyl; oligonucleotide alkyldeoxycytidine; nucleotide oligo alkyldeoxycytidine

IT Nucleotides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(oligo-, prepn. of, contg. N4-methyldeoxycytidine)

IT **951-78-0**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(acetylation of, in synthesis of alkyl deoxycytidines)

IT 74-89-5, reactions 75-04-7, reactions 75-31-0, reactions 108-18-9 108-91-8, reactions 109-73-9, reactions 109-89-7, reactions 110-89-4, reactions 111-92-2 124-40-3, reactions 624-78-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(**amination** by, of thiodeoxyuridine diacetate, in synthesis of alkyl deoxycytidine)

IT 103931-23-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of, in synthesis of alkyl deoxycytidines)

IT **13030-62-1P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and sulfuration of, in synthesis of alkyl deoxycytidines)

IT 58927-26-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

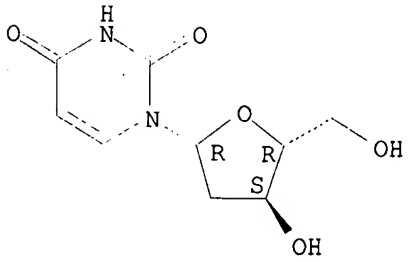
IT **22882-02-6P 53213-03-9P 70465-61-1P 86811-97-4P 103931-24-4P 103931-25-5P 103931-26-6P 103931-27-7P 103931-28-8P 103931-29-9P 103931-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from deoxyuridine)

IT **951-78-0**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(acetylation of, in synthesis of alkyl deoxycytidines)

RN 951-78-0 HCAPLUS

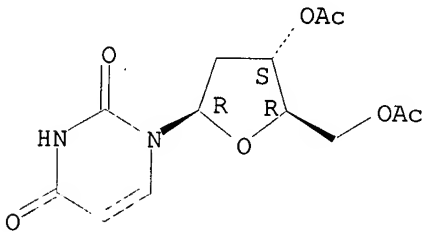
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



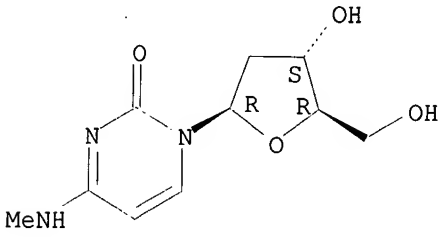
IT **13030-62-1P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and sulfuration of, in synthesis of alkyl deoxycytidines)
RN 13030-62-1 HCAPLUS
CN Uridine, 2'-deoxy-, 3',5'-diacetate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



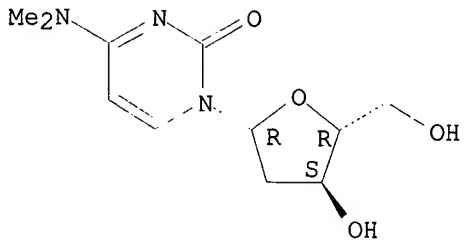
IT **22882-02-6P 53213-03-9P 70465-61-1P**
86811-97-4P 103931-24-4P 103931-25-5P
103931-26-6P 103931-27-7P 103931-28-8P
103931-29-9P 103931-30-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from deoxyuridine)
RN 22882-02-6 HCAPLUS
CN Cytidine, 2'-deoxy-N-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



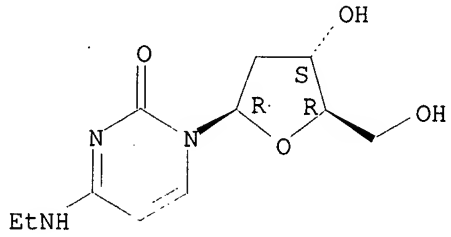
RN 53213-03-9 HCAPLUS
CN Cytidine, 2'-deoxy-N,N-dimethyl- (7CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



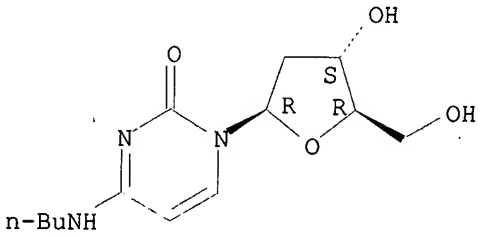
RN 70465-61-1 HCAPLUS
CN Cytidine, 2'-deoxy-N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



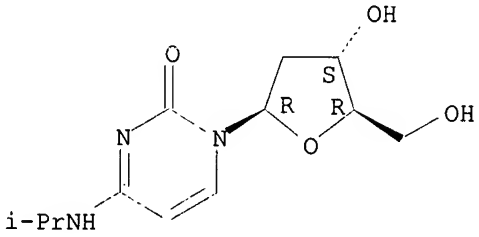
RN 86811-97-4 HCAPLUS
CN Cytidine, N-butyl-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



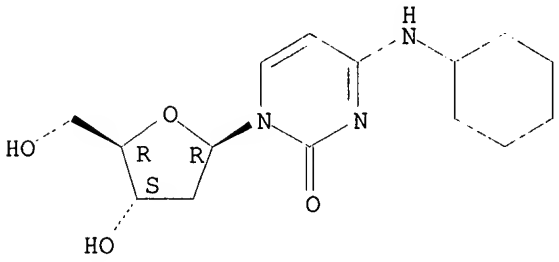
RN 103931-24-4 HCAPLUS
CN Cytidine, 2'-deoxy-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



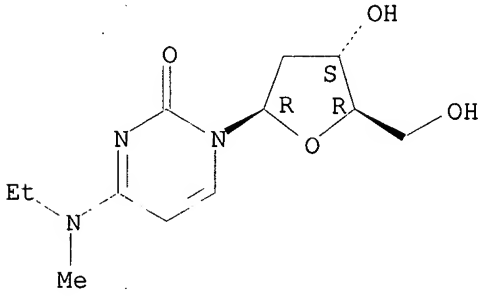
RN 103931-25-5 HCAPLUS
CN Cytidine, N-cyclohexyl-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



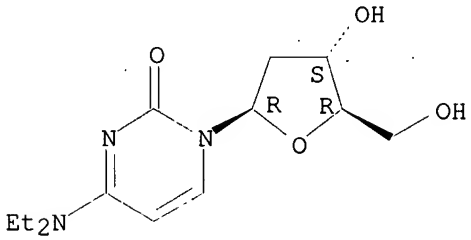
RN 103931-26-6 HCAPLUS
CN Cytidine, 2'-deoxy-N-ethyl-N-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



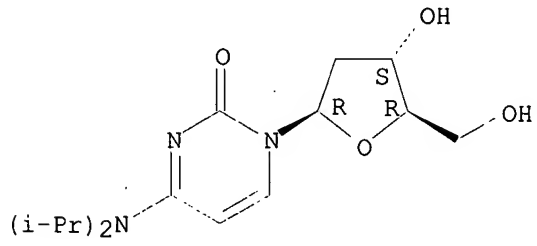
RN 103931-27-7 HCAPLUS
CN Cytidine, 2'-deoxy-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



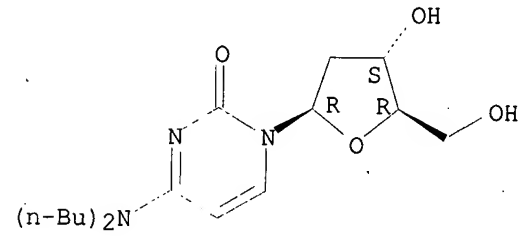
RN 103931-28-8 HCAPLUS
CN Cytidine, 2'-deoxy-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



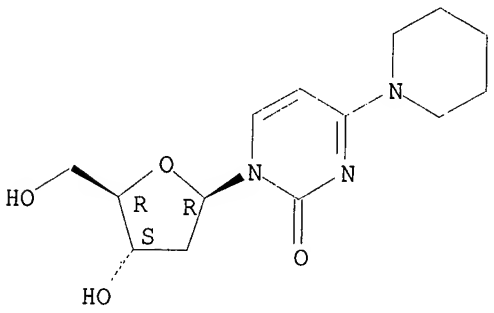
RN 103931-29-9 HCAPLUS
CN Cytidine, N,N-dibutyl-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 103931-30-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-(1-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



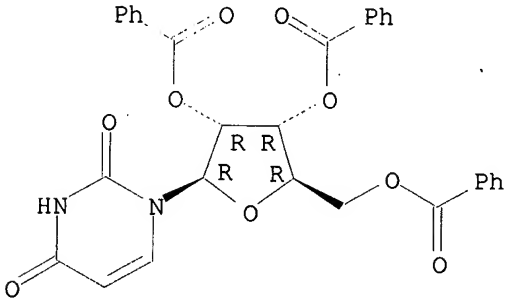
L75 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1986:168734 HCAPLUS
DN 104:168734
TI Reaction of uracil nucleosides with 1-methylimidazole in the presence of phosphoryl chloride: a convenient method for the synthesis of 4-substituted pyrimidin-2(1H)-one nucleosides
AU Matsuda, Akira; Obi, Kokoh; Miyasaka, Tadashi
CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan
SO Chemical & Pharmaceutical Bulletin (**1985**), 33(6), 2575-8
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 104:168734
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Reaction of 2',3',5'-tri-O-benzoyluridine with 1-methylimidazole in the presence of POCl3 in MeCN afforded imidazolium I. Nucleophilic substitutions of I with RH (R = MeO, p-ClC6H4S, EtS, Et2N, CH2:CHCH2NH, and NH2) yielded ribosides II. The method was also successful with 2'-deoxyriboside III (R1 = Me, iodo; R2 = Ac, Bz).
ST benzoyluridine methylimidazole condensation; nucleophilic substitution

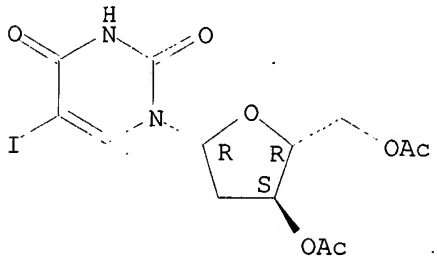
methylimidazolylpyrimidinone nucleoside
IT Substitution reaction, nucleophilic
(of (methylimidazolyl)pyrimidinone nucleosides with thiols and **amines**)
IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of uracil, with methylimidazole)
IT **1748-04-5 1956-30-5 35898-30-7** 98495-56-8
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(phosphoryl chloride-catalyzed condensation of, with methylimidazole)
IT 616-47-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphoryl chloride-catalyzed condensation of, with tribenzoyluridine)
IT **99679-98-8P 99680-05-4P** 99680-07-6P
99692-47-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and imidazolyl substitution of)
IT 2873-31-6P 15049-50-0P **31652-74-1P** 99679-99-9P 99680-00-9P
99680-01-0P 99680-02-1P 99680-03-2P 99680-04-3P
99680-06-5P 99680-08-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **1748-04-5 1956-30-5 35898-30-7**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(phosphoryl chloride-catalyzed condensation of, with methylimidazole)
RN 1748-04-5 HCAPLUS
CN Uridine, 2',3',5'-tribenzoate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



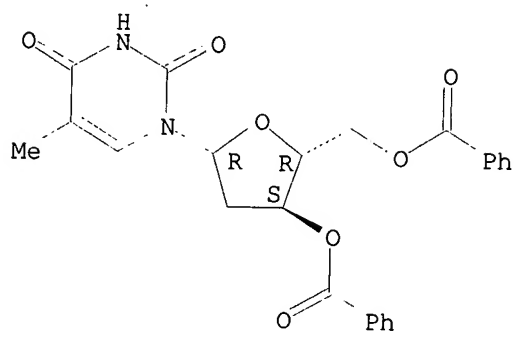
RN 1956-30-5 HCAPLUS
CN Uridine, 2'-deoxy-5-iodo-, 3',5'-diacetate (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



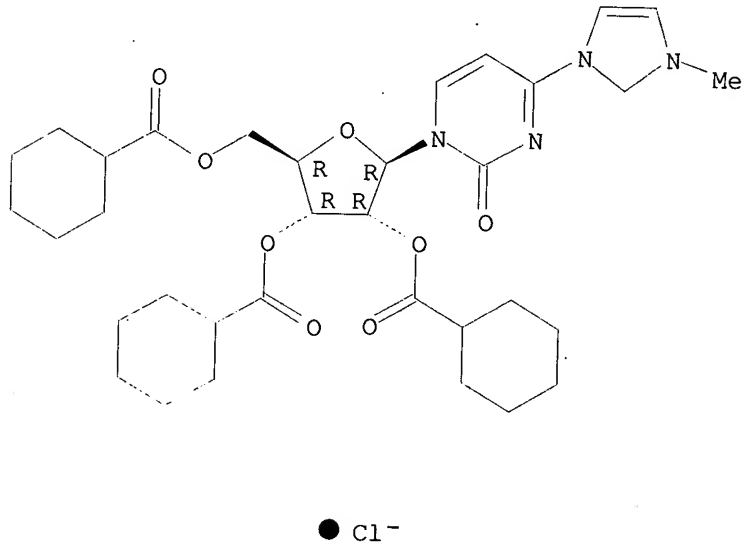
RN 35898-30-7 HCAPLUS
CN Thymidine, 3',5'-dibenzoate (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **99679-98-8P 99680-05-4P 99692-47-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and imidazolyl substitution of)
RN 99679-98-8 HCAPLUS
CN 1H-Imidazolium, 1-[1,2-dihydro-2-oxo-1-(2,3,5-tri-O-benzoyl-.beta.-D-ribofuranosyl)-4-pyrimidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

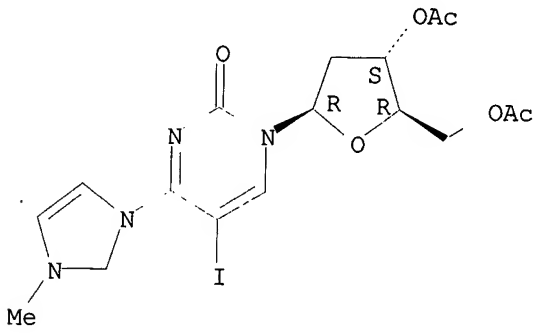
Absolute stereochemistry.



● Cl^-

*** FRAGMENT DIAGRAM IS INCOMPLETE ***
RN 99680-05-4 HCAPLUS
CN 1H-Imidazolium, 1-[1-(3,5-di-O-acetyl-2-deoxy-.beta.-D-erythro-pentofuranosyl)-1,2-dihydro-5-iodo-2-oxo-4-pyrimidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

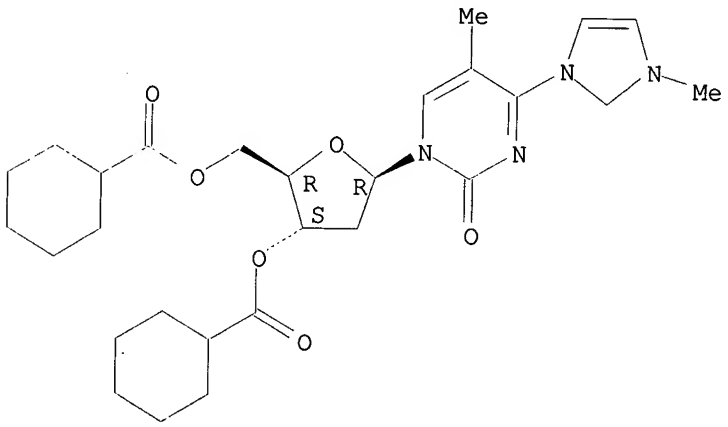
Absolute stereochemistry.



● Cl^-

*** FRAGMENT DIAGRAM IS INCOMPLETE ***
RN 99692-47-4 HCAPLUS
CN 1H-Imidazolium, 1-[1-(3,5-di-O-benzoyl-2-deoxy-.beta.-D-erythro-pentofuranosyl)-1,2-dihydro-5-methyl-2-oxo-4-pyrimidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

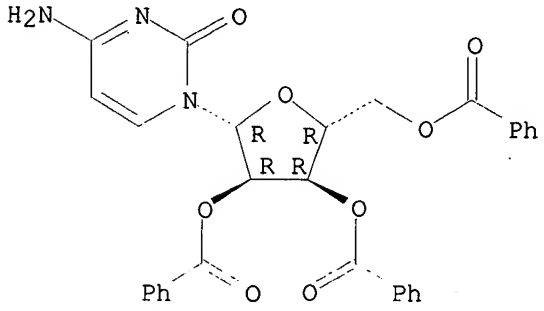
Absolute stereochemistry.



● Cl^-

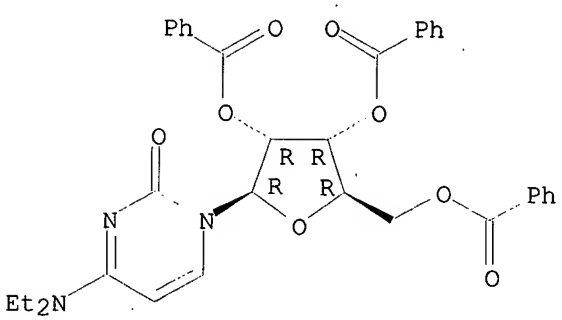
*** FRAGMENT DIAGRAM IS INCOMPLETE ***
IT **31652-74-1P 99680-01-0P 99680-02-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 31652-74-1 HCAPLUS
CN Cytidine, 2',3',5'-tribenzoate (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



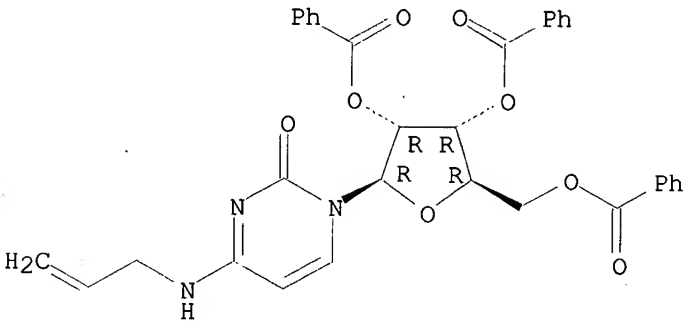
RN 99680-01-0 HCAPLUS
CN Cytidine, N,N-diethyl-, 2',3',5'-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



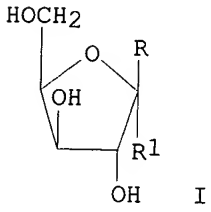
RN 99680-02-1 HCAPLUS
CN Cytidine, N-2-propenyl-, 2',3',5'-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1986:82007 HCAPLUS
DN 104:82007
TI Systematic synthesis and biological evaluation of .alpha.- and .beta.-D-xylofuranosyl nucleosides of the five naturally occurring bases in nucleic acids and related analogs
AU Gosselin, Gilles; Bergogne, Marie Christine; De Rudder, Jean; De Clercq, Erik; Imbach, Jean Louis
CS Lab. Chim. Bio-Org., Univ. Sci. Tech. Languedoc, Montpellier, 34060, Fr.
SO Journal of Medicinal Chemistry (**1986**), 29(2), 203-13
CODEN: JMCMAR; ISSN: 0022-2623

DT Journal
LA English
CC 1-12 (Pharmacology)
Section cross-reference(s): 33
GI



I

AB .alpha.- And .beta.-D-xylofuranosyl nucleosides (I; R = H, 9-adeninyl, 1-cytosinyl, 1-uracidlyl, 1-thyminyl, 9-(2-amino-6-chloropurinyl), etc. and R1 = H, 9-adeninyl, 1-cytosinyl, or 4-carbamoyl-5-aminoimidazolyl) were prepd. (.beta.-anomers by glycosylation of the purine and pyrimidine aglycons with 1-O-acetyl-2,3,5-tri-O-benzoyl-.alpha.-D-xylofuranose [20822-87-1] or 1,2-di-O-acetyl-3,5-di-O-benzoyl-.alpha.-D-xylofuranose [83434-58-6] followed by deblocking; .alpha.-anomers by multistep synthesis starting with the appropriate amino- or mercaptoxylofuranooxazolines) and tested for acute toxicity and therapeutic activity against herpetic encephalitis in mice, antiviral action in vitro, cytotoxicity to myeloma SP2 cells in suspension culture, and inhibitory activity against macromol. synthesis in rabbit kidney cells in primary culture. Three I, .beta.-D-xylofuranosyl nucleosides of adenine, guanine, and cytosine, showed marked biol. activity.

ST xylofuranosyl nucleoside prepn biol activity; antiviral xylofuranosyl nucleoside; antitumor xylofuranosyl nucleoside; toxicity xylofuranosyl nucleoside; cytotoxicity xylofuranosyl nucleoside; macromol formation xylofuranosyl nucleoside

IT Encephalitis
(from herpes virus, xylofuranosyl nucleosides treatment of)

IT Deoxyribonucleic acid formation
Protein formation
Ribonucleic acid formation
(inhibition of, by xylofuranosyl nucleosides)

IT Neoplasm inhibitors
Virucides and Virustats
(xylofuranosyl nucleosides)

IT Toxicity
(acute, of xylofuranosyl nucleosides)

IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(xylofuranosyl, prepn. and neoplasm-inhibiting and antiviral and cytotoxic activities of)

IT 110-89-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(Mannich reaction of, with xylofuranosyluracil)

IT 65-71-4 66-22-8, biological studies 71-30-7 73-24-5, biological studies 10310-21-1
RL: BIOL (Biological study)
(condensation of, with peracylated xylofuranoses)

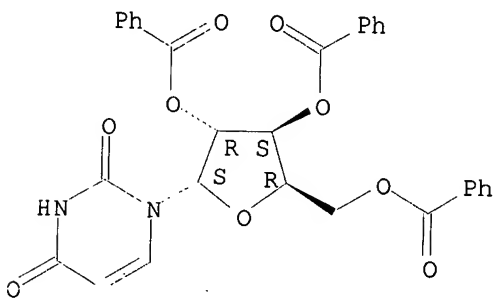
IT 58-86-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(conversion of, to oxazoline)

IT 20822-87-1 83434-58-6
RL: BIOL (Biological study)
(glycosylation of purines and pyrimidines with)

IT 99355-43-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** of)
IT 99355-42-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and base-catalyzed cyclization and deprotection of)
IT 99436-42-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion to oxazoline)
IT **77180-84-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion to thiouracil deriv.)
IT 99376-19-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization with triethylformate)
IT 99355-39-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)
IT 99355-37-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydration of)
IT **52448-07-4P** 83373-05-1P **99355-30-3P**
99355-31-4P 99355-32-5P 99355-33-6P 99355-40-5P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and deprotection of)
IT 99355-36-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and desilylation or acetylation of or reaction benzoylisothiocyanate)
IT 99355-44-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrogenolysis of)
IT 99355-41-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and methylation of)
IT 58-86-6DP, purine and pyrmidine nucleosides 524-69-6P 2946-52-3P
3530-56-1P 16535-78-7P 26017-62-9P 27462-39-1P
52486-19-8P 53294-14-7P **89618-08-6P** 99355-34-7P
99436-41-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and neoplasm-inhibiting and antiviral and cytotoxic activities of)
IT **41545-82-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and protection or Mannich reaction with piperidine)
IT 41545-78-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with Me propiolate)
IT 99436-43-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with aminocyanoacetamide or hydrolysis of)
IT 99355-38-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with formamidine acetate or deacetylation of)

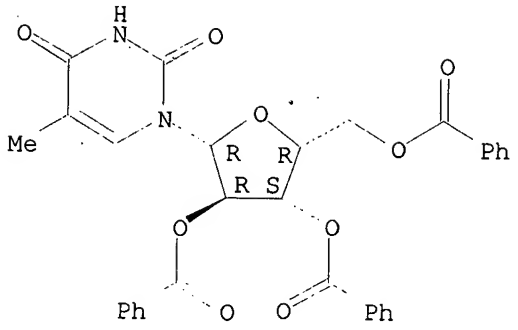
IT 41545-80-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and ring-opening of)
IT 89595-52-8P 89596-51-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and substitution reaction with thiourea)
IT 27462-38-0P **77172-20-4P** 99355-35-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 3473-63-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [acetylbis(butyldimethylsilyl)xylofuranosyl]cyanoami
noimidazole)
IT 532-55-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [bis(butyldimethylsilyl)xylofuranosyl]carbamoylamino
imidazole)
IT 922-67-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminoxylofuranoxazoline)
IT 6719-21-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bis(butyldimethylsilyl)xylofuranoxazoline)
IT 2810-85-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of)
IT 62-56-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reaction of, with aminochloropurine xylofuranosides)
IT 122-51-0
RL: BIOL (Biological study)
(xylofuranosylcyanoaminoimidazole cyclization with)
IT **77180-84-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion to thiouracil deriv.)
RN 77180-84-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2,3,5-tri-O-benzoyl-.alpha.-D-
xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



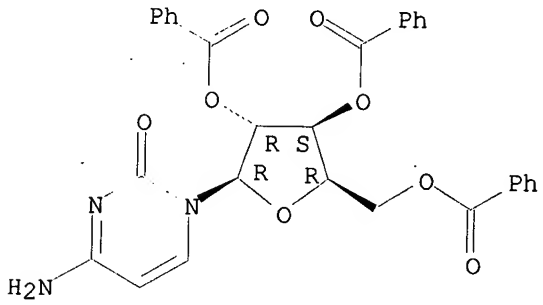
IT **52448-07-4P 99355-30-3P 99355-31-4P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP
(Preparation); **RACT (Reactant or reagent)**
(prepn. and deprotection of)
RN 52448-07-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-(2,3,5-tri-O-benzoyl-.beta.-D-
xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



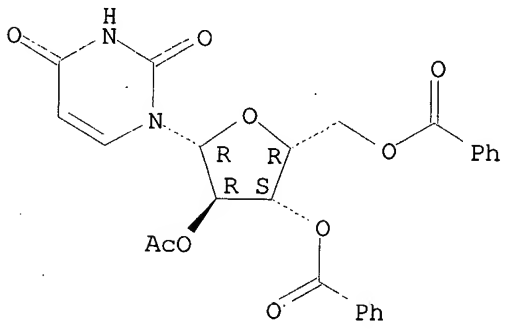
RN 99355-30-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2,3,5-tri-O-benzoyl-.beta.-D-xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



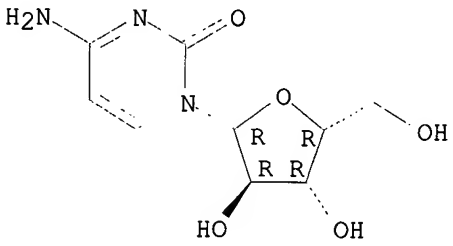
RN 99355-31-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-O-acetyl-3,5-di-O-benzoyl-.beta.-D-xylofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



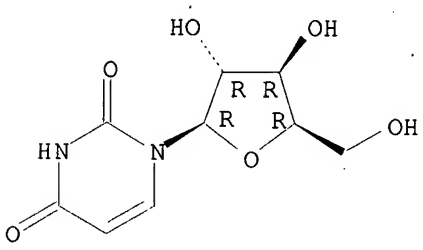
IT **3530-56-1P 16535-78-7P 52486-19-8P 89618-08-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and neoplasm-inhibiting and antiviral and cytotoxic activities of)
RN 3530-56-1 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



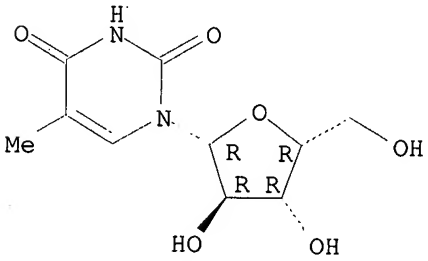
RN 16535-78-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



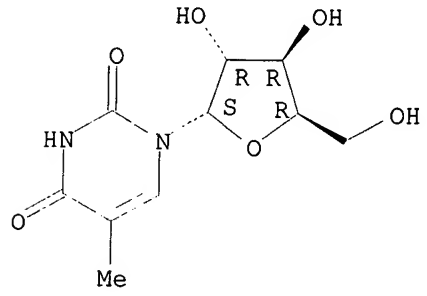
RN 52486-19-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-.beta.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



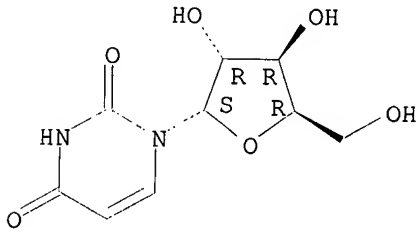
RN 89618-08-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-.alpha.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



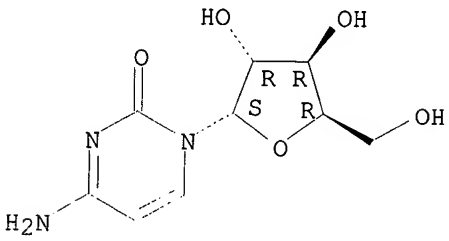
IT **41545-82-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and protection or Mannich reaction with piperidine)
RN 41545-82-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.alpha.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **77172-20-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 77172-20-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.alpha.-D-xylofuranosyl- (9CI) (CA INDEX NAME)

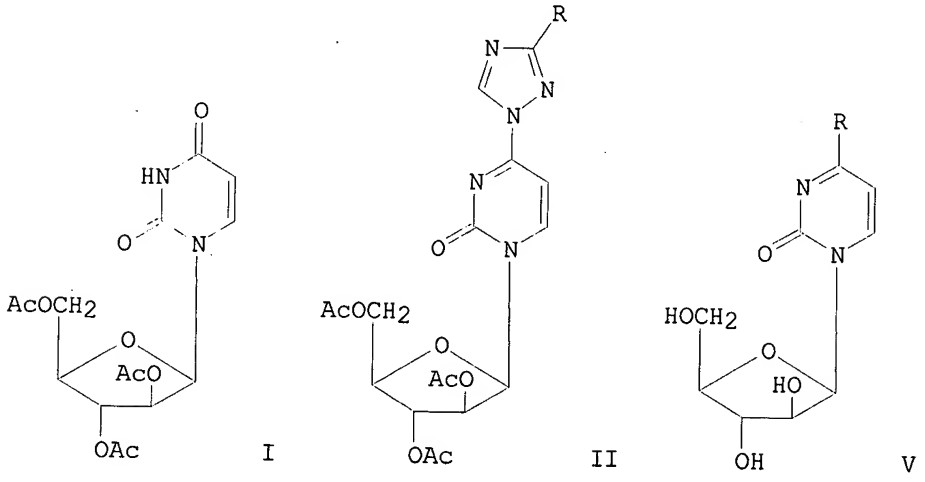
Absolute stereochemistry.



L75 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1982:510325 HCAPLUS
DN 97:110325
TI 4-(1,2,4-Triazol-1-yl)- and 4-(3-nitro-1,2,4-triazol-1-yl)-1-(.beta.-D-2,3,5-tri-O-acetylarabinofuranosyl)pyrimidin-2(1H)-ones. Valuable intermediates in the synthesis of derivatives of 1-(.beta.-D-arabinofuranosyl)cytosine (ara-C)
AU Divakar, K. J.; Reese, Colin B.

CS Dep. Chem., King's Coll., London, WC2R 2LS, UK
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (**1982**), (5), 1171-6
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
CC 33-9 (Carbohydrates)
Section cross-reference(s): 23, 25, 28

GI



AB Condensation reactions of triacetylarabinofuranosyluracil (I), prepd. in 3 steps from uracil, with tri(1H-1,2,4-triazol-1-yl)phosphine oxide and with 3-nitro-1,2,4-triazole and (PhO)2POCl gave the title compds. II (R = H, NO2) (III and IV, resp.). Substitution reactions of III with RH (R = NH2, NHMe, NMe2, morpholino, PhNH, p-MeC6H4S) gave the corresponding arabinofuranosylcytosines V in high yield. Substitution of IV with PhNH2 and with H2NCH2CO2Me gave V (R = PhNH, NHCH2CO2Me, resp.).

ST arabinofuranosyluracil prepn condensation triazole; triazolylarabinofuranosylpyrimidinone prepn substitution; cytosine arabinofuranosyl

IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(arabinofuranosylcytosines, prepn. of, by substitution reactions of triazolyl(triacetylarabinofuranosyl)pyrimidinones with **amines**)

IT Substitution reaction, nucleophilic
(of triazolyl(triacetylarabinofuranosyl)pyrimidinones, with **amines** and with toluenethiol)

IT 24807-55-4 72741-18-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with (triacetylarabinofuranosyl)uracil)

IT 66-22-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, intramol.)

IT **3083-77-0P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and acetylation of)

IT **14057-18-2P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and condensation reactions of, with tritriazolylphosphine oxide

and nitrotriazole)

IT 3736-77-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

IT **82855-62-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of, with **amines** and with toluenethiol)

IT **82855-63-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of, with aniline and with glycine Me ester)

IT **147-94-4P 13491-42-4P 82855-64-9P**
82855-65-0P 82855-66-1P 82855-67-2P 82855-68-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

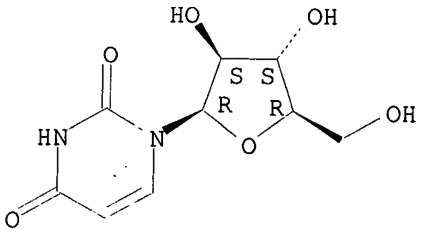
IT 74-89-5, reactions 106-45-6 110-91-8, reactions 124-40-3, reactions 616-34-2 7664-41-7, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reaction of, with triazolyl[triacetylarabinofuranosyl)pyrimidinone)

IT 62-53-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reactions of, with triazolyl(triacetylarabinofuranosyl)pyrimidinones)

IT **3083-77-0P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and acetylation of)

RN 3083-77-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-arabinofuranosyl- (9CI) (CA INDEX NAME)

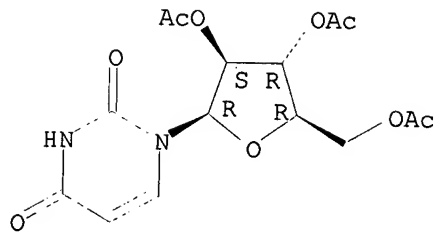
Absolute stereochemistry.



IT **14057-18-2P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and condensation reactions of, with tritriazolylphosphine oxide and nitrotriazole)

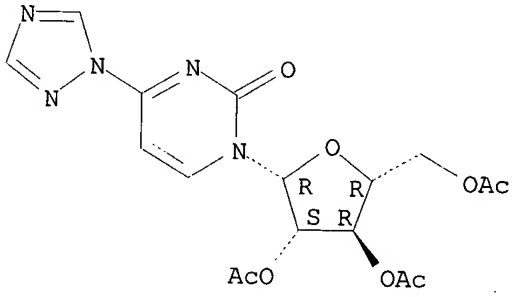
RN 14057-18-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



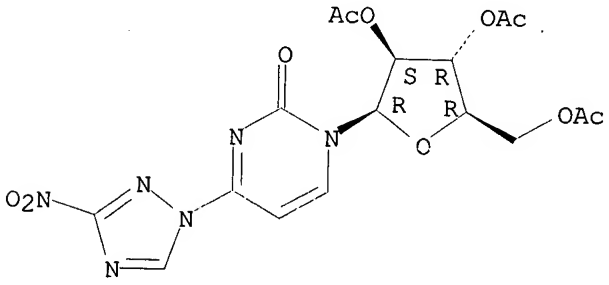
IT **82855-62-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of, with **amines** and with toluenethiol)
RN 82855-62-7 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)-4-(1H-1,2,4-triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **82855-63-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and substitution reactions of, with aniline and with glycine Me ester)
RN 82855-63-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(3-nitro-1H-1,2,4-triazol-1-yl)-1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

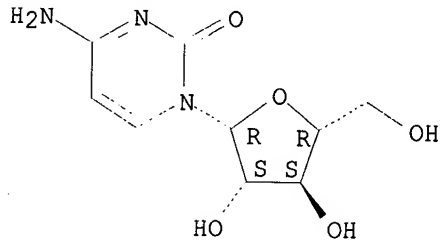
Absolute stereochemistry.



IT **147-94-4P 13491-42-4P 82855-64-9P**
82855-65-0P 82855-66-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 147-94-4 HCAPLUS

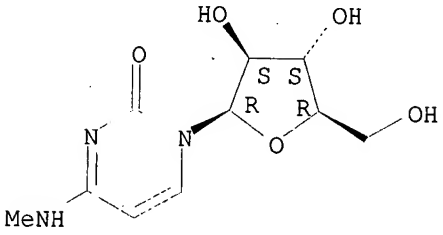
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



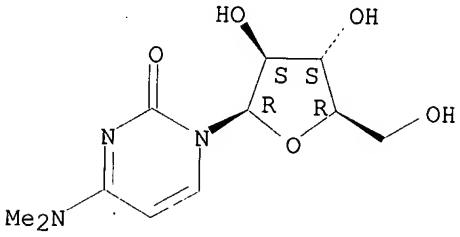
RN 13491-42-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-.beta.-D-arabinofuranosyl-4-(methylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



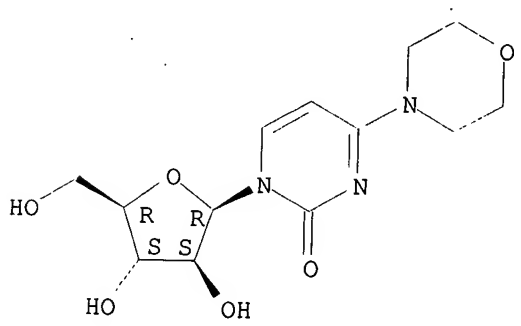
RN 82855-64-9 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-.beta.-D-arabinofuranosyl-4-(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



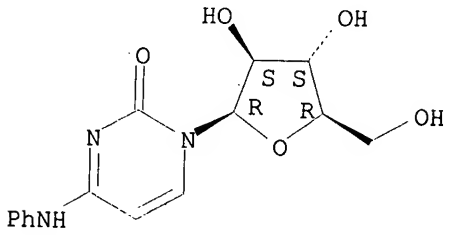
RN 82855-65-0 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-.beta.-D-arabinofuranosyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 82855-66-1 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-.beta.-D-arabinofuranosyl-4-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1981:121849 HCAPLUS
DN 94:121849
TI Methylation study of ribonucleosides, deoxyribonucleosides, and 2'-O-methylribonucleosides with trimethylsulfonium hydroxide and trimethylsulfonium iodide. Influence of the 2'-hydroxy-groups on the reactivity of the base moieties of ribonucleosides
AU Yamauchi, Kiyoshi; Nakagima, Toru; Kinoshita, Masayoshi
CS Dep. Appl. Chem., Osaka City Univ., Osaka, 558, Japan
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (**1980**), (12), 2787-92
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
CC 33-7 (Carbohydrates)
Section cross-reference(s): 22
AB The methylation reactions were examd. of the nucleosides adenosine (I), guanosine (II), cytidine (III), uridine (IV), and inosine, the deoxy derivs. of I, II, III, IV, and thymidine, and the 2'-O-Me derivs. of I, III, and IV with Me3SOH and Me3SI (DMF, 70-85.degree., 1-3.5 h). The deoxy and 2'-O-Me derivs. showed very similar behavior both in reactivity of the base moiety and in the methylation pattern, but the nucleosides had a much less reactive base group and gave different methylation products. The reactivities are discussed in terms of intramol. H-bonding between the 2'-OH and **amine** groups. The methylating characteristics of Me3SOH and Me3SI are also described. Kinetic studies indicated an SN2 mechanism for methylation of nucleosides by Me3S+ ion.
ST nucleoside methylation trimethylsulfonium kinetics; ribonucleoside methylation trimethylsulfonium kinetics; deoxyribonucleoside methylation trimethylsulfonium kinetics; methylribonucleoside methylation trimethylsulfonium kinetics; methylsulfonium methylation ribonucleoside

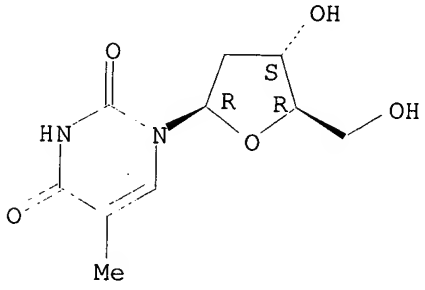
kinetics; hydrogen bond nucleoside methylation
IT Kinetics of methylation
Methylation
(of ribonucleosides by trimethylsulfonium ion)
IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(deoxyribo-, methylation of, by trimethylsulfonium ion, kinetics of)
IT Nucleosides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(ribo-, methylation of, by trimethylsulfonium ion, kinetics of)
IT 2181-42-2 17287-03-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(methylation by, of ribonucleosides, kinetics of)
IT **50-89-5**, reactions 58-61-7, reactions 58-63-9 **58-96-8**
65-46-3 118-00-3, reactions **951-77-9 951-78-0**
958-09-8 961-07-9 **2140-72-9 2140-76-3** 2140-79-6
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(methylation of, by trimethylsulfonium ion, kinetics of)
IT 76551-26-3P 76551-27-4P 76551-28-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 1867-73-8P 10300-22-8P 15763-06-1P 60037-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of adenosine)
IT 57817-83-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of adenosine and methyladenosine)
IT 20594-00-7P 76567-64-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of cytidine)
IT 2002-35-9P 3413-67-0P 35665-58-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxyadenosine)
IT **22882-02-6P** 76551-25-2P 76567-65-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxycytidine)
IT 5132-79-6P 26718-69-4P 76551-22-9P 76551-23-0P 76551-24-1P
76567-63-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxyguanosine)
IT 958-74-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxythymidine)
IT 24514-32-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxyuridine)
IT 2140-65-0P 2140-71-8P 10300-27-3P 15313-37-8P 73667-71-7P
74466-66-3P 76551-21-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of guanosine)
IT 2140-73-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of inosine)
IT 20649-46-1P 30891-53-3P 76567-62-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of methyladenosine)
IT **13048-95-8P** 34218-86-5P 76567-66-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of methylcytidine)
IT 7103-27-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of methyluridine)
IT 2140-69-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of uridine)

IT **50-89-5**, reactions **58-96-8 65-46-3**
951-77-9 951-78-0 2140-72-9 2140-76-3
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(methylation of, by trimethylsulfonium ion, kinetics of)

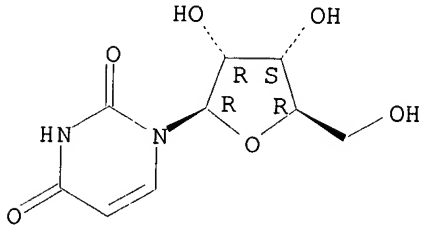
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



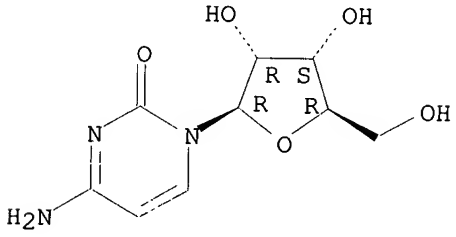
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



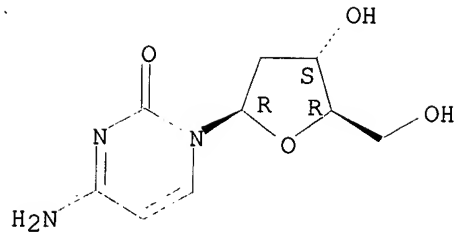
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



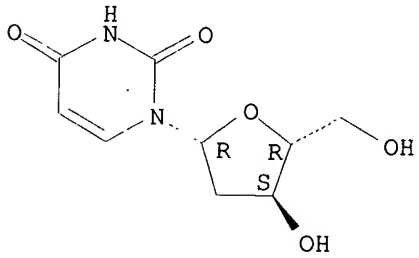
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



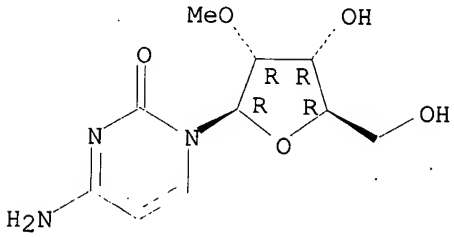
RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



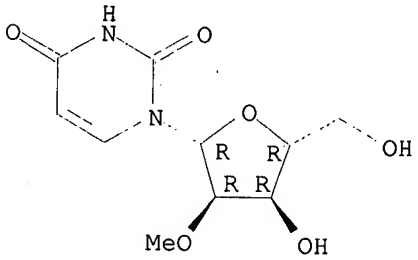
RN 2140-72-9 HCAPLUS
CN Cytidine, 2'-O-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2140-76-3 HCAPLUS
CN Uridine, 2'-O-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

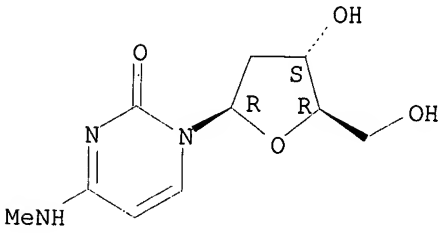
Absolute stereochemistry.



IT **22882-02-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of deoxycytidine)

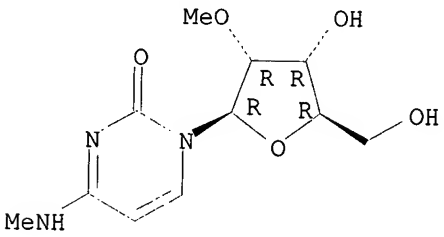
RN 22882-02-6 HCAPLUS
CN Cytidine, 2'-deoxy-N-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **13048-95-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by methylation of methylcytidine)
RN 13048-95-8 HCAPLUS
CN Cytidine, N-methyl-2'-O-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

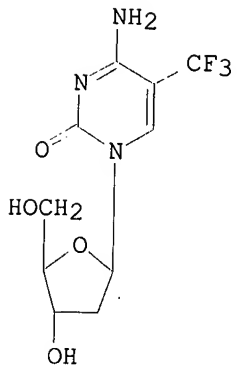
Absolute stereochemistry.



L75 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:592052 HCAPLUS
DN 93:192052
TI Antiviral composition and method of treating virus diseases
IN Greer, Sheldon
PA University of Miami, USA; PCR Inc.
SO U.S., 11 pp.
CODEN: USXXAM
DT Patent
LA English
IC A61K031-70; C07H017-00
NCL 424180000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 3, 33
FAN.CNT 2

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	US 4210638	A	19800701		US 1978-887541	19780317 <--
	GB 1588550	A	19810423		GB 1978-24858	19780531 <--
	DE 2838644	A1	19790927		DE 1978-2838644	19780905 <--
	DE 2838644	C2	19890202			
	GB 2021097	A	19791128		GB 1979-9319	19790316 <--
	GB 2021097	B2	19821006			
PRAI	US 1978-887541		19780317	<--		
	US 1978-887555		19780317	<--		
	US 1978-887745		19780317	<--		

GI



I

AB A combination of 5-trifluoromethyl-2'-deoxycytidine (I) [**66384-66-5**] and a cytidine deaminase inhibitor, such as tetrahydrouridine [18771-50-1] or 2'-deoxytetrahydrouridine [31962-88-6] is an effective virucide, esp. for Herpes simplex. I was prepd. by treating 5-trifluoromethyl-2'-deoxyuridine [**70-00-8**], in which the free hydroxy groups have been protected (silylated), with NH3.

ST virucide trifluoromethyldeoxycytidine; tetrahydrouridine trifluoromethyldeoxycytidine virucide

IT Virucides and Virustats
(trifluoromethyldeoxycytidine-cytidine deaminase inhibitor compns.)

IT **70-00-8**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(**amination** of, in trifluoromethyldeoxycytidine virucide prepn.)

IT **66384-66-5P**
RL: PREP (Preparation)
(prepn. and virucidal compns. contg. cytidine deaminase inhibitor and)

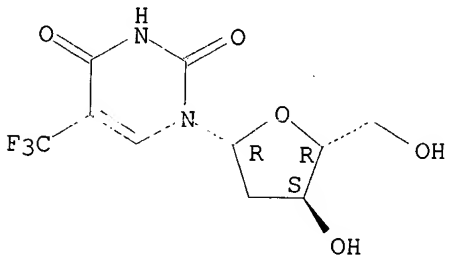
IT 18771-50-1 31962-88-6
RL: BIOL (Biological study)
(virucidal compns. contg. trifluoromethyldeoxycytidine and)

IT **70-00-8**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(**amination** of, in trifluoromethyldeoxycytidine virucide prepn.)

RN 70-00-8 HCAPLUS

CN Thymidine, .alpha.,.alpha.,.alpha.-trifluoro- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

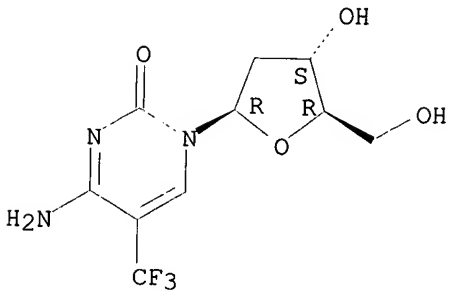


IT **66384-66-5P**
RL: PREP (Preparation)
(prepn. and virucidal compns. contg. cytidine deaminase inhibitor and)

RN 66384-66-5 HCAPLUS

CN Cytidine, 2'-deoxy-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

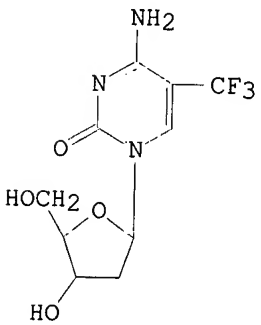
Absolute stereochemistry.



L75 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:129265 HCAPLUS
DN 92:129265
TI 5-Trifluoromethyl-2'-deoxycytidine
IN Greer, Sheldon B.; Stump, Eugene G., Jr.; Psarras, Theodore
PA PCR Inc., USA; University of Miami
SO Ger. Offen., 42 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07H019-06
CC 33-7 (Carbohydrates)
Section cross-reference(s): 63
FAN.CNT 2

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	DE 2838644	A1	19790927		DE 1978-2838644	19780905 <--
	DE 2838644	C2	19890202			
	US 4210638	A	19800701		US 1978-887541	19780317 <--
	JP 54128587	A2	19791005		JP 1978-109549	19780906 <--
PRAI	US 1978-887541		19780317	<--		
	US 1978-887555		19780317	<--		
	US 1978-887745		19780317	<--		

GI

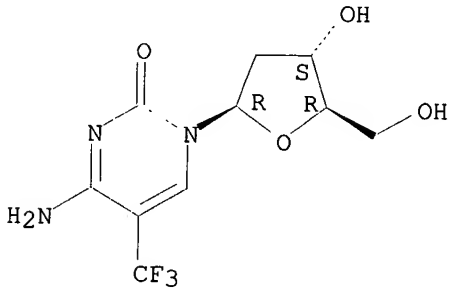


I

AB Title compd. I was prepd. by silylation of 5-trifluoromethyl-2'-deoxyuridine with HN(SiMe3)2 followed by treatment with NH3-NH4Cl. I is virucidal against Herpes viruses and in the presence of a cytidine deaminase inhibitor has a lower cytotoxicity and greater stability than known compds., such as trifluorothymidine.

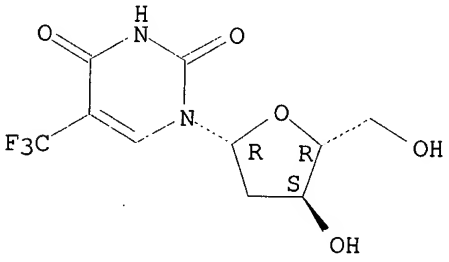
ST fluoromethyldeoxycytidine; deoxycytidine trifluoromethyl; virucide trifluoromethyldeoxycytidine
IT Virucides and Virustats
(trifluorodeoxycytidine)
IT **66384-66-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and virucidal activity of)
IT **70-00-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(silylation and **amination** of)
IT **66384-66-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and virucidal activity of)
RN 66384-66-5 HCAPLUS
CN Cytidine, 2'-deoxy-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



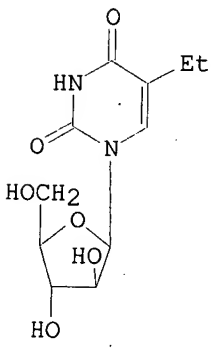
IT **70-00-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(silylation and **amination** of)
RN 70-00-8 HCAPLUS
CN Thymidine, .alpha.,.alpha.,.alpha.-trifluoro- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1979:413506 HCAPLUS
DN 91:13506
TI Synthesis and antiviral activities of arabinofuranosyl-5-ethylpyrimidine nucleosides. Selective antiherpes activity of 1-(.beta.-D-arabinofuranosyl)-5-ethyluracil
AU Kulikowski, Tadeusz; Zawadzki, Zbigniew; Shugar, David; Descamps, Johan; De Clercq, Erik

CS Inst. Biochem. Biophys., Pol. Acad. Sci., Warsaw, Pol.
SO Journal of Medicinal Chemistry (**1979**), 22(6), 647-53
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 1-4 (Pharmacodynamics)
Section cross-reference(s): 33
GI



I

AB Arabinofuranosyl-5-ethylpyrinidine nucleosides were prepd. by several procedures and their activities tested in primary rabbit kidney cells and in human skin fibroblasts. 1-.beta.-D-Arabinsfuranosyl-5-ethyluracil (I) [**70020-72-3**], prepd. by the condensation of 2,3,5-tri-O-(benzyl)-.alpha.-D-arabinofuranosyl chloride [4060-34-8] with 2,4-bis-O-(trimethylsilyl)-5-ethyluracil [10457-14-4] in ClCH2CH2Cl in the presence of mol. sieves or SnCl4, inhibited herpes simplex virus at a concn. as low as 2 ug/mL. The .alpha.-anomer of I was inactive. CD and NMR data are given.

ST pyrimidine nucleoside prepn virucide

IT Virucides and Virustats
(arabinsfuranosylethylpyrimidine nucleosides)

IT Circular dichroism
Nuclear magnetic resonance
(of arabinofuranosylethylpyrinidine nucleosides)

IT Chromatography, thin-layer
(of arabinsfuranosylethylpyrimidine nucleosides)

IT 4060-34-8
RL: BIOL (Biological study)
(condensation of, with bis(trimethylsilyl)ethyluracil)

IT 70051-90-0
RL: BIOL (Biological study)
(condensation of, with bis(trimethylsilyl)ethyluriacil)

IT 52492-40-7
RL: BIOL (Biological study)
(condensation of, with diethoxyethylpyrimidine)

IT 34171-35-2
RL: BIOL (Biological study)
(condensation of, with tribenzylarabinofuranosyl bromide)

IT 999-97-3
RL: BIOL (Biological study)
(ethyluracil silyation by)

IT 70020-81-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **amination** and hydrolysis of)

IT 70020-79-0P 70020-80-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(prepn. and **amination** of)

IT 10457-14-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with arabinosfuranose- and uracil derivs.)

IT **70020-77-8P 70020-78-9P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction with phosphorus pentasulfide)

IT 70020-76-7P 70020-82-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)

IT **70020-72-3P 70020-73-4P 70020-74-5P 70020-75-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and virucidal activity of)

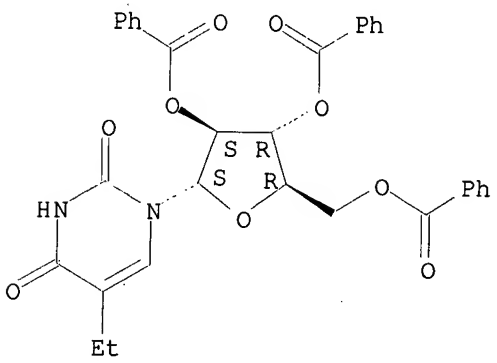
IT 4348-68-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bis(trimethylsilyl)ethyluracil)

IT 4212-49-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of)

IT **70020-77-8P 70020-78-9P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction with phosphorus pentasulfide)

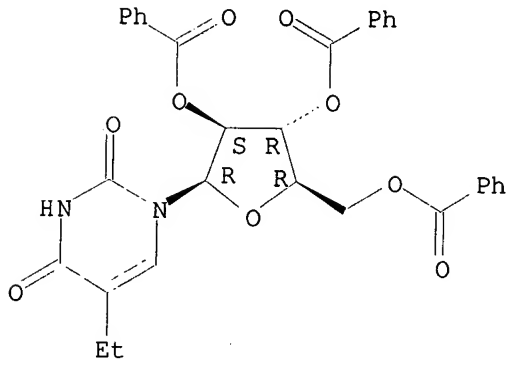
RN 70020-77-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-ethyl-1-(2,3,5-tri-O-benzoyl-.alpha.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



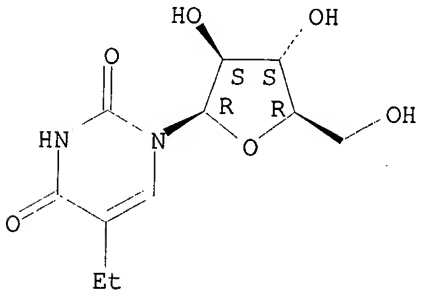
RN 70020-78-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-ethyl-1-(2,3,5-tri-O-benzoyl-.beta.-D-arabinofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



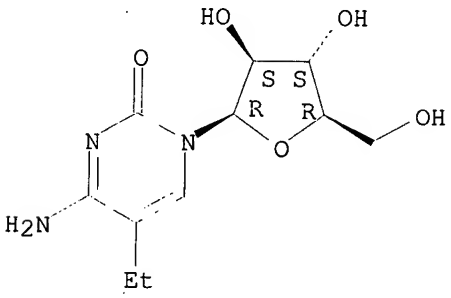
IT **70020-72-3P 70020-73-4P 70020-74-5P**
70020-75-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and virucidal activity of)
RN 70020-72-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-arabinofuranosyl-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



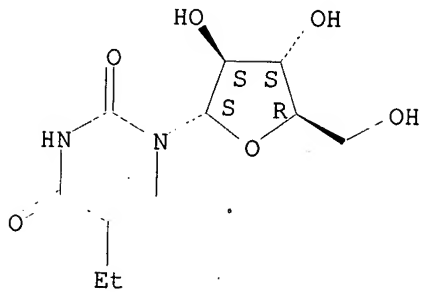
RN 70020-73-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



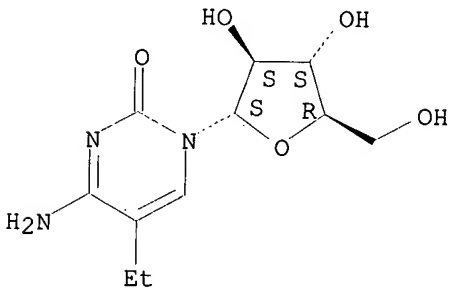
RN 70020-74-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.alpha.-D-arabinofuranosyl-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

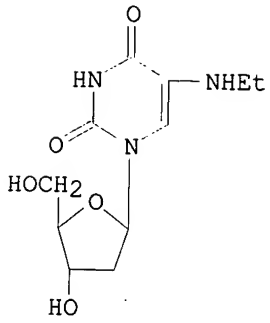


RN 70020-75-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.alpha.-D-arabinofuranosyl-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1979:413469 HCAPLUS
DN 91:13469
TI Design of species- or isozyme-specific enzyme inhibitors. I. Effect of thymidine substituents on affinity for the thymidine site of hamster cytoplasmic thymidine kinase
AU Hampton, Alexander; Kappler, Francis; Chawla, Ram R.
CS Fox Chase Cancer Cent., Inst. Cancer Res., Philadelphia, PA, 19111, USA
SO Journal of Medicinal Chemistry (**1979**), 22(6), 621-31
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 1-3 (Pharmacodynamics)
Section cross-reference(s): 7, 33
GI



I

AB 5-(Ethylamino)-2'-deoxyuridine (I) [5155-07-7] was a very weak inhibitor of hamster thymidine kinase [9002-06-6] and longer-chain 5-(acylamino)-2'-deoxyuridines were weak noncompetitive inhibitors. The above, their phosphates and some of their analogs were synthesized. The concn. dependence of their inhibitory action on the enzyme resembled that of the feedback inhibitor TTP. Enzyme-inhibitor dissocn. consts. (Ki values) were detd. for thymidine derivs. monosubstituted at various positions. There is evidence that attachment of suitable substituents to thymidine could, in principle, lead to thymidine site directed isoenzyme-specific inhibitors of human cytoplasmic thymidine kinase, which is a candidate target in the design of antineoplastic drugs.

ST deoxyuridine deriv thymidine kinase inhibitor

IT Kinetics, enzymic
(of inhibition, of thymidine kinase)

IT 16357-59-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of nucleosides)

IT 5536-30-1 25152-20-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, by (ethoxycarbonyl)ethoxydihydroquinoline)

IT 9002-06-6
RL: PROC (Process)
(inhibition of, by deoxythymidines and deoxyuridines)

IT 70465-57-5P 70465-58-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion triphosphate)

IT 70465-91-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and isolation of)

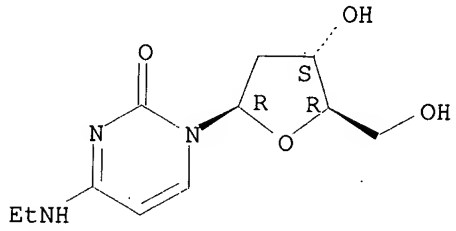
IT 5155-07-7P 5536-30-1P 7236-56-8P 21473-40-5P 21888-81-3P
26639-00-9P 52450-18-7P 63614-47-1P 70465-51-9P 70465-52-0P
70465-53-1P 70465-54-2P 70465-55-3P 70465-56-4P 70465-59-7P
70465-60-0P **70465-61-1P** 70465-62-2P 70465-63-3P
70465-64-4P 70465-65-5P 70465-66-6P 70465-67-7P 70465-68-8P
70465-69-9P 70465-70-2P 70465-72-4P 70465-73-5P 70465-74-6P
70465-75-7P 70465-76-8P 70465-77-9P 70465-78-0P 70465-79-1P
70465-80-4P 70465-81-5P 70465-82-6P 70465-83-7P 70465-84-8P
70465-85-9P 70465-86-0P 70575-53-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and thymidine kinase-inhibiting activity of)

IT 70465-71-3P 70465-87-1P 70465-88-2P 70465-89-3P 70465-90-6P
70465-92-8P 70491-64-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 7253-19-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with alkylamines)

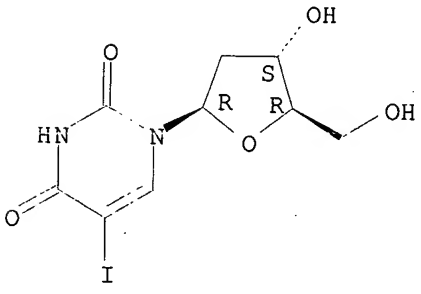
IT 1763-02-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with **amines**)
IT **54-42-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with **amines** and with potassium cyanate)
IT 70465-93-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethanethiol)
IT 64966-96-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethylamine)
IT 110-70-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tosylthymidine)
IT 53435-03-3 53495-39-9 70465-94-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(thymidine kinase-inhibiting activity of)
IT **70465-61-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and thymidine kinase-inhibiting activity of)
RN 70465-61-1 HCAPLUS
CN Cytidine, 2'-deoxy-N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **54-42-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with **amines** and with potassium cyanate)
RN 54-42-2 HCAPLUS
CN Uridine, 2'-deoxy-5-iodo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L75 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1979:87784 HCAPLUS
DN 90:87784

TI The synthesis of nucleosides derived from 5-ethynyluracil and 5-ethynylcytosine

AU Barr, Philip J.; Jones, A. Stanley; Serafinowski, Pawel; Walker, Richard T.

CS Chem. Dep., Univ. Birmingham, Birmingham, UK

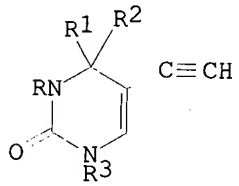
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (**1978**), (10), 1263-7
CODEN: JCPRB4; ISSN: 0300-922X

DT Journal

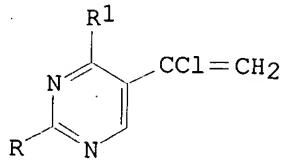
LA English

CC 33-7 (Carbohydrates)

GI



I



II

AB 5-Ethynyluridine, 2'-deoxy-5-ethynyluridine, and its .alpha.-anomer (I; R = H, R1R2 = O, R3 = .beta.-D-ribofuranosyl, 2-deoxy-.beta.-D-erythro-pentofuranosyl, -.alpha.-D-erythro-pentofuranosyl, resp.) were prepd. by condensation of the trimethylsilyl deriv. of 5-ethynyluracil (I; R = R3 = H, R1R2 = O) with the appropriate blocked sugar derivs. and removal of the blocking groups. Treatment of the pyrimidine II (R = R1 = Cl) with NH3 gave a mixt. of II [R = NH2, R1 = Cl; R = Cl, R1 = NH2 (III)]; treatment of III with KOH in aq. dioxane gave 5-ethynylcytosine (I; RR1 = bond, R2 = NH2, R3 = H) (IV). Condensation of the trimethylsilyl deriv. of IV with the appropriate protected sugar derivs. and removal of the protecting groups gave 5-ethynylcytidine, 2'-deoxy-5-ethynylcytidine, and its .alpha.-anomer (I; RR1 = bond, R2 = NH2, R3 = .beta.-D-ribofuranosyl, 2-deoxy-.beta.-D-erythro-pentofuranosyl, -.alpha.-D-erythro-pentofuranosyl, resp.).

ST uridine ethynyl; cytosine ethynyl; cytidine ethynyl; ethynyl nucleoside

IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from ethynyluracil and -cytosine)

IT 61751-45-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(**amination** of)

IT 4330-21-6 6974-32-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with bis(trimethylsilyl) deriv. of ethynyluracil)

IT 69075-40-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and condensation reaction of, with acetyltribenzoylribofuranose and chlorodeoxyditoluoylpentofuranose)

IT 65223-79-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion of, to etynylcytidine)

IT **65223-81-6P 69075-41-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and debenzoylation of)

IT **69075-43-0P 69075-44-1P 69075-45-2P 69075-46-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and detoluoylation of)

IT 65223-77-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **65223-78-1P 69075-47-4P 69275-22-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from ethynylcytosine)

IT **61135-33-9P 69075-42-9P 69101-77-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from ethynyluracil)

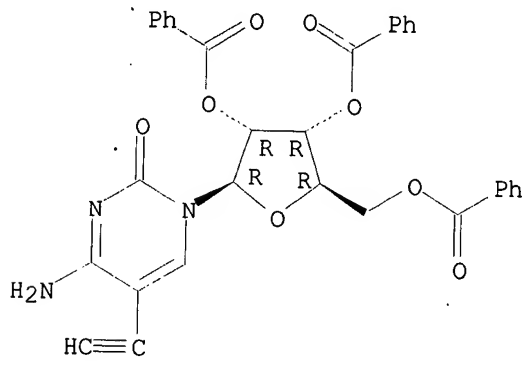
IT 65223-82-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., oxidn., and dehydrochlorination of)

IT 59989-18-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(trimethylsilylation of)

IT **65223-81-6P 69075-41-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and debenzoylation of)

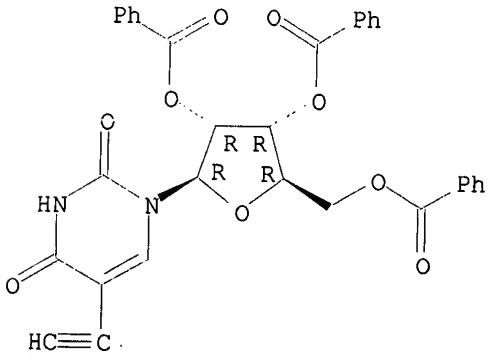
RN 65223-81-6 HCAPLUS
CN Cytidine, 5-ethynyl-, 2',3',5'-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 69075-41-8 HCAPLUS
CN Uridine, 5-ethynyl-, 2',3',5'-tribenzoate (9CI) (CA INDEX NAME)

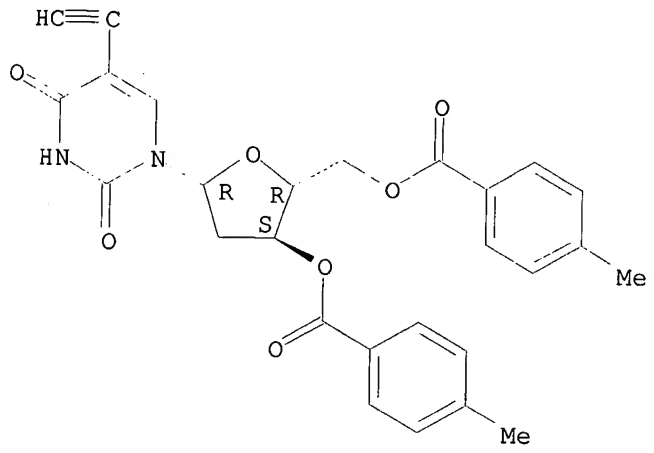
Absolute stereochemistry.



IT **69075-43-0P 69075-44-1P 69075-45-2P**

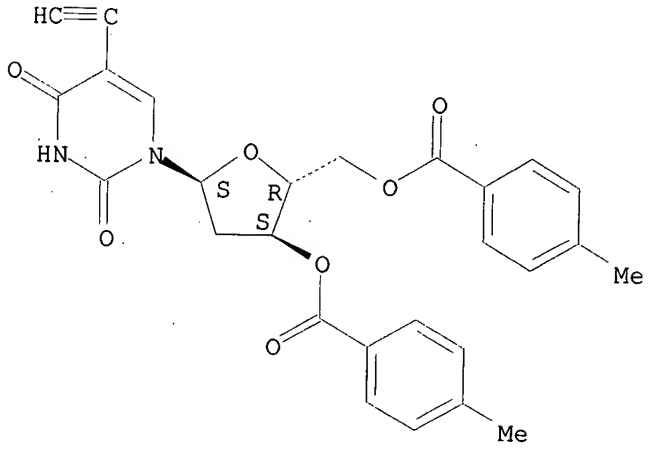
69075-46-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and detoluoylation of)
RN 69075-43-0 HCAPLUS
CN Uridine, 2'-deoxy-5-ethynyl-, 3',5'-bis(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



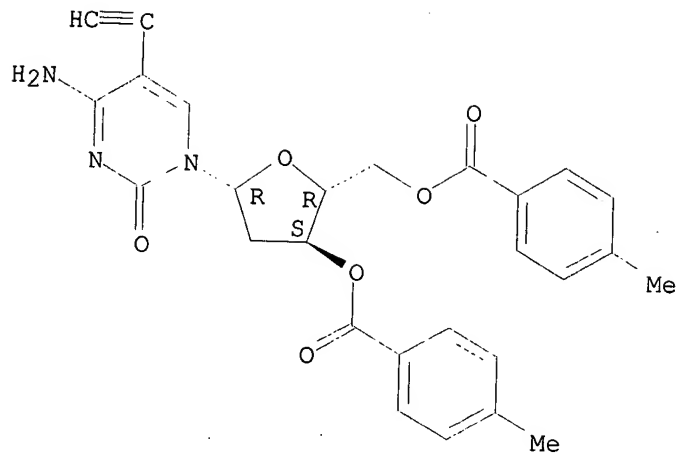
RN 69075-44-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-.alpha.-D-erythro-pentofuranosyl]-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



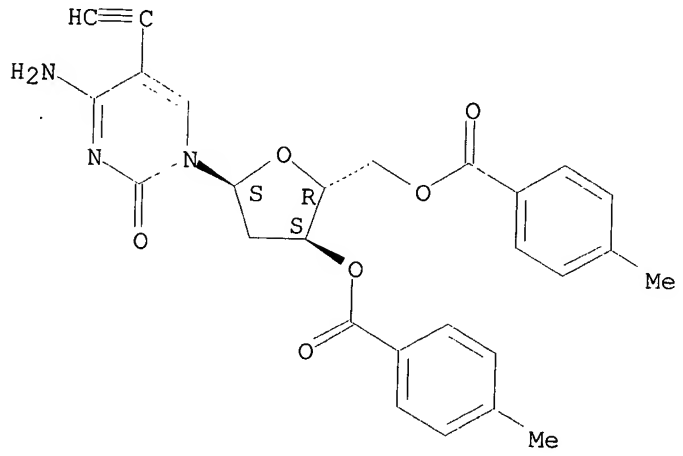
RN 69075-45-2 HCAPLUS
CN Cytidine, 2'-deoxy-5-ethynyl-, 3',5'-bis(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



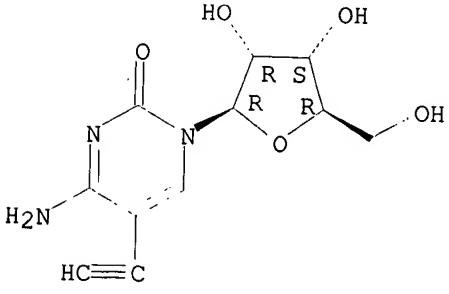
RN 69075-46-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-.alpha.-D-erythro-pentofuranosyl]-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



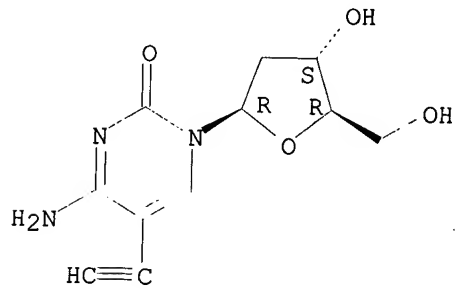
IT **65223-78-1P 69075-47-4P 69275-22-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from ethynylcytosine)
RN 65223-78-1 HCAPLUS
CN Cytidine, 5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



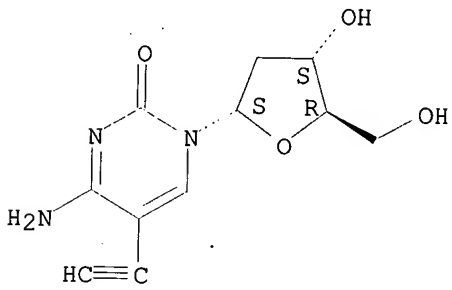
RN 69075-47-4 HCAPLUS
CN Cytidine, 2'-deoxy-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



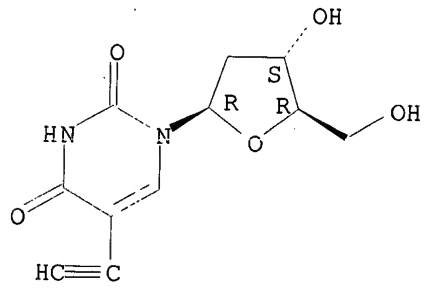
RN 69275-22-5 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-deoxy-.alpha.-D-erythro-pentofuranosyl)-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



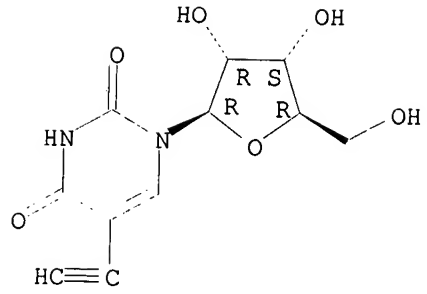
IT **61135-33-9P 69075-42-9P 69101-77-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from ethynyluracil)
RN 61135-33-9 HCAPLUS
CN Uridine, 2'-deoxy-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



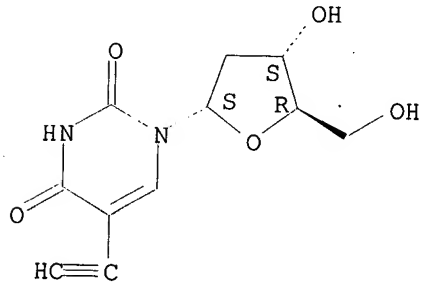
RN 69075-42-9 HCAPLUS
CN Uridine, 5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 69101-77-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-.alpha.-D-erythro-pentofuranosyl)-5-ethynyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L75 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1977:106946 HCAPLUS
DN 86:106946
TI Transformation of 5-(polyfluoroalkyl)- and 5-(polyfluoroalkoxymethyl)uridines
AU Mel'nik, S. Ya.; Bakhmedova, A. A.; Sof'in, A. V.; Vornovitskaya, G.I.; Dubinina, I. G.; Preobrazhenskaya, M. N.
CS Cancer Res. Cent., Moscow, USSR
SO Bioorganicheskaya Khimiya (**1976**), 2(11), 1520-5
CODEN: BIKHD7; ISSN: 0132-3423
DT Journal
LA Russian
CC 33-7 (Carbohydrates)
Section cross-reference(s): 28
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Cyclization of 5-(3,3,3-trifluoropropyl)uridine by (PhO)2CO gave 56% 2,2'-anhydro deriv. which was cleaved by base to give 76% I (R = H, X = O). The latter was acetylated and treated with P2S5 to give 88% I (R = Ac, X = S) which was **aminated** to give 57% II. Acetylation of III (R = H, X = O) followed by treatment with P2S5 gave 52.3% III (R = Ac, X = S) which was **aminated** to give 71.4% IV. I (R = H, X = O), III (R = H, X = O), and 5-(3,3,3-trifluoroethoxymethyl)uridine had no effect on uridinekinase, UMP-, and UdP-kinases in enzyme systems

phosphorylating uridine to UMP or UMP to UTP.

ST uridine polyfluoroalkyl; fluoroalkoxyuridine; polyfluoroalkoxymethyl uridine

IT 102-09-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of trifluoropropyluridine by)

IT **55420-09-2**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(cyclization of, by diphenyl carbonate)

IT 9026-39-5 9026-51-1 9036-23-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(effect of polyfluoroalkyl- and polyfluoroalkoxymethyluridines on)

IT **62012-59-3P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and acetylation of)

IT 59694-34-7P 59727-26-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and effect on uridine kinase)

IT 62012-61-7P 62012-63-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with ammonia)

IT 59694-33-6P **62012-60-6P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction with phosphorus pentasulfide)

IT 62042-31-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and ring cleavage of)

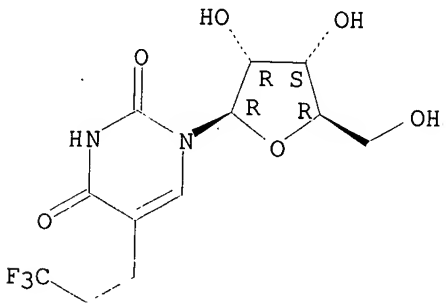
IT **62012-62-8P** 62012-64-0P 62012-65-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **55420-09-2**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(cyclization of, by diphenyl carbonate)

RN 55420-09-2 HCAPLUS

CN Uridine, 5-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

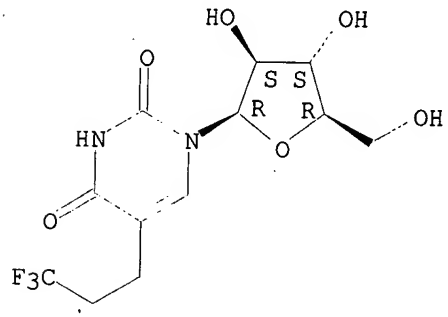


IT **62012-59-3P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and acetylation of)

RN 62012-59-3 HCAPLUS

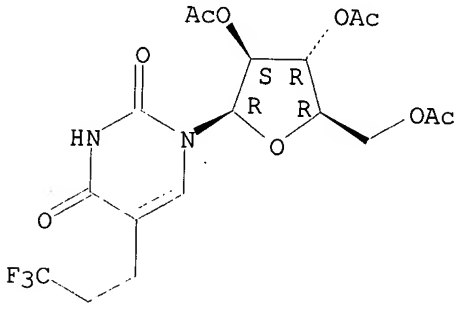
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-arabinofuranosyl-5-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



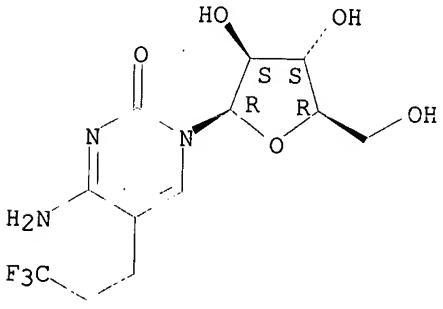
IT **62012-60-6P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction with phosphorus pentasulfide)
RN 62012-60-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2,3,5-tri-O-acetyl-.beta.-D-arabinofuranosyl)-1-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

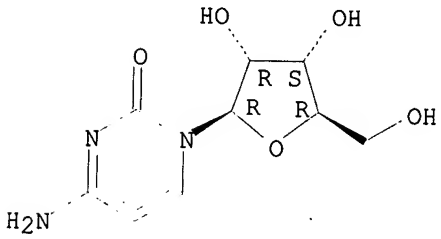


IT **62012-62-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 62012-62-8 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-arabinofuranosyl-5-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

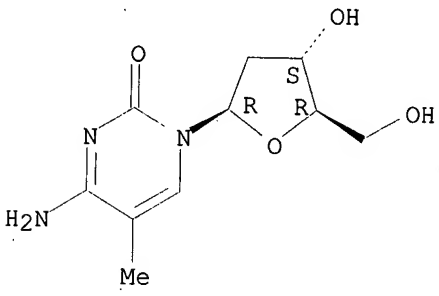


L75 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1975:497822 HCAPLUS



RN 5241-10-1 HCAPLUS
CN Cytidine, 2'-deoxy-5-methyl-, monohydrochloride (8CI, 9CI) (CA INDEX NAME)

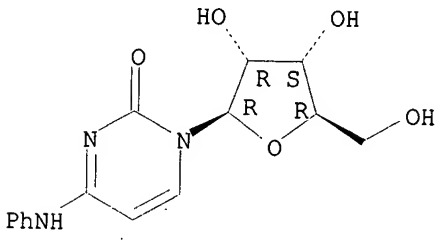
Absolute stereochemistry.



● HCl

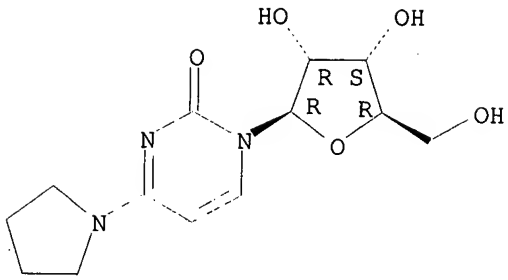
RN 18839-89-9 HCAPLUS
CN Cytidine, N-phenyl- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



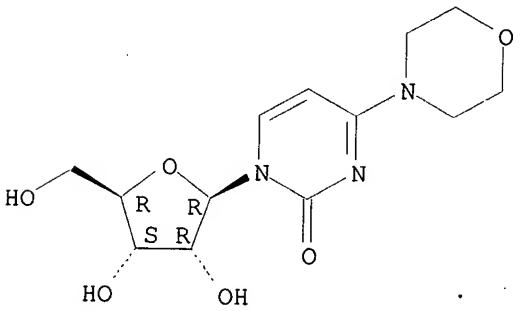
RN 29834-86-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(1-pyrrolidinyl)-1-.beta.-D-ribofuranosyl- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



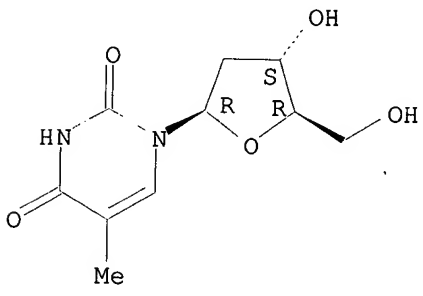
RN 39824-59-4 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-(4-morpholinyl)-1-.beta.-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **50-89-5**, reactions **58-96-8**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(silylation and **amination** of)
RN 50-89-5 HCAPLUS
CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

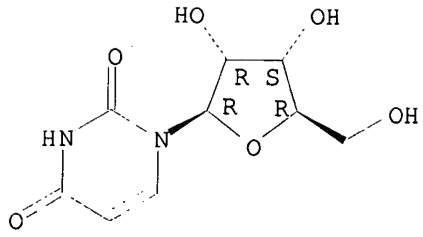


RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

DN 83:97822
TI Syntheses of nucleosides. XIV. **Amination** of heterocycles. I. New simple synthesis of cytidines
AU Vorbrueggen, Helmut; Krolikiewicz, Konrad; Niedballa, Ulrich
CS Forschungslab., Schering A.-G., Berlin, Fed. Rep. Ger.
SO Justus Liebigs Annalen der Chemie (**1975**), (5), 988-1002
CODEN: JLACBF; ISSN: 0075-4617
DT Journal
LA German
CC 33-7 (Carbohydrates)
AB Cytidines were prepd. by persilylation of free or acetylated uridines or uridine 5'-phosphates of the OH groups of the sugar moiety and the phosphate group followed by treatment with NH3 or primary or secondary **amines**. Thus, uridine reacted with (Me3Si)2NH and NH3 in an autoclave for 0.5 hr at 24.degree. and 16 atm and 48 hr at 162.degree. and 26 atm to give 72.5% cytidine.
ST silylation **amination** uridine phosphate; cytidylic acid analog; cytosine deoxyribofuranosyl; cytidine; phenethylcytosine deoxyribofuranosyl; phenylcytidine deoxyribofuranosyl; azauridine pyrrolidinoribofuranosyl; thymidine **amination**
IT 75-12-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(**amination** of silylated nucleosides with)
IT 62-53-3, reactions 64-04-0 100-46-9 108-00-9 110-91-8 123-75-1 7664-41-7, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(**amination** of silylated uridines with)
IT **65-46-3P 5241-10-1P 18839-89-9P 29834-86-4P** 34948-48-6P 35003-10-2P **39824-59-4P** 56982-72-0P 56982-73-1P 56982-74-2P 56982-75-3P 56982-77-5P 56982-78-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 57025-16-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ribose derivs.)
IT 5991-01-5 6974-32-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with silylated triazines)
IT **50-89-5**, reactions 54-25-1 **58-96-8** 1627-29-8 3387-36-8 56982-76-4
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(silylation and **amination** of)
IT 999-97-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of uridine derivs. with)
IT **65-46-3P 5241-10-1P 18839-89-9P 29834-86-4P 39824-59-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

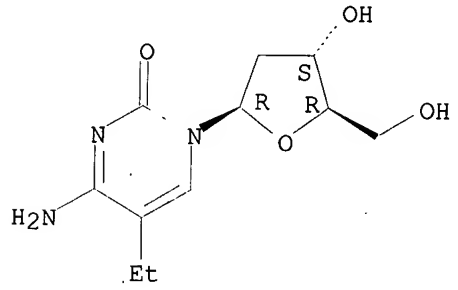
Absolute stereochemistry.



L75 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2003 ACS
AN 1974:421580 HCAPLUS
DN 81:21580
TI 5-Alkylpyrimidine nucleosides. Preparation and properties of 5-ethyl-2'-deoxycytidine and related nucleosides
AU Kulikowski, T.; Shugar, D.
CS Inst. Biochem. Biophys., Acad. Sci., Warsaw, Pol.
SO Journal of Medicinal Chemistry (**1974**), 17(3), 269-73
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 3-2 (Biochemical Interactions)
Section cross-reference(s): 33
AB 5-Ethyl-2'-deoxycytidine (I) [**50356-36-0**] and its anomer 1-(2-deoxy-.alpha.-D-ribofuranosyl)-5-ethylcytosine (II) [**50499-40-6**] were prepd. by thiation of .alpha.,.beta.-1-(3,5-di-O-p-chlorobenzoyl-2-D-ribofuranosyl)-5-ethyluracil with P2S5, thin-layer chromatog. sepn. of anomers, deblocking by treatment with NaOMe, and **amination** with NH3-MeOH. I had significant activity against herpes simplex virus, while 5'-phosphate esters of both I and II were dephosphorylated at comparable rates by snake venom 5'-nucleotidase [9027-73-0].
ST cytidine ethyl deoxy antiviral; nucleotide dephosphorylation nucleotidase; nucleoside cytidine antiviral
IT Dephosphorylation, biological
(by nucleotidase, of ethyldeoxycytidine phosphate)
IT Virus, animal
(herpes simplex, ethyldeoxycytidine inhibition of)
IT Circular dichroism
(of 5-ethyl-2'-deoxynucleosides, conformation in relation to)
IT Chromatography, thin-layer
(of 5-ethylpyrimidine 2'-deoxynucleosides, stereoisomer sepn. by)
IT 9001-78-9 9027-73-0
RL: PRP (Properties)
(deoxycytidine 5'-phosphate dephosphorylation by)
IT 52239-74-4 52239-75-5
RL: PRP (Properties)
(dephosphorylation of)
IT **50356-36-0P 50499-40-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antiviral activity of)
IT 52239-69-7P 52239-70-0P 52239-71-1P **52239-72-2P**
52239-73-3P 52365-58-9P 52365-59-0P
RL: PREP (Preparation)
(prepn. of)
IT 75-77-4 52304-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cytosine deriv.)

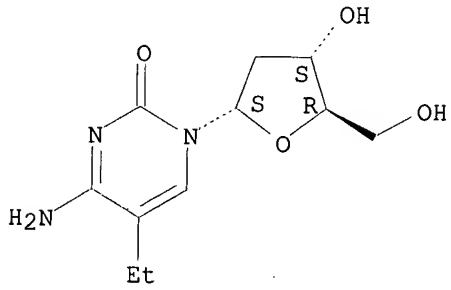
IT **25137-84-2 25253-75-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(thiation of)
IT 32550-24-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(trimethylsilylation of)
IT **50356-36-0P 50499-40-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antiviral activity of)
RN 50356-36-0 HCAPLUS
CN Cytidine, 2'-deoxy-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



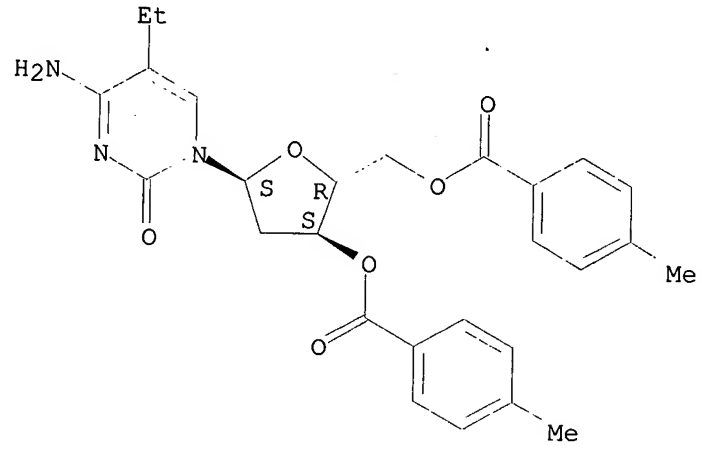
RN 50499-40-6 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-(2-deoxy-.alpha.-D-erythro-pentofuranosyl)-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



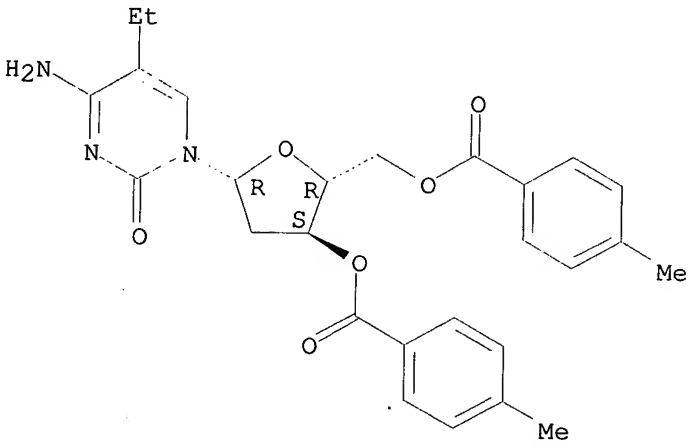
IT **52239-72-2P 52239-73-3P**
RL: PREP (Preparation)
(prepn. of)
RN 52239-72-2 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-.alpha.-D-erythro-pentofuranosyl]-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



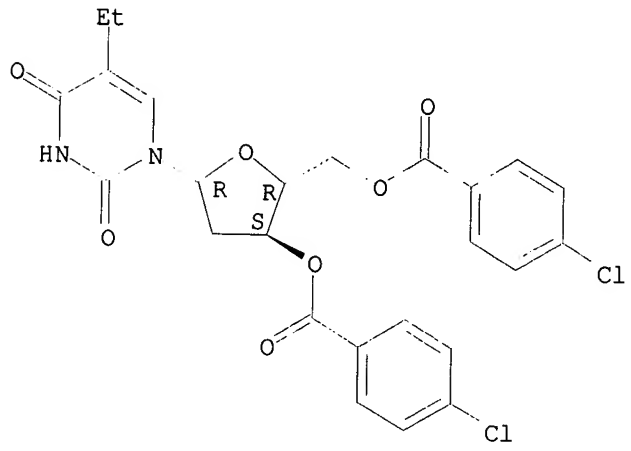
RN 52239-73-3 HCAPLUS
CN Cytidine, 2'-deoxy-5-ethyl-, 3',5'-bis(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **25137-84-2 25253-75-2**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(thiation of)
RN 25137-84-2 HCAPLUS
CN Uridine, 2'-deoxy-5-ethyl-, 3',5'-bis(4-chlorobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 25253-75-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[3,5-bis-O-(4-chlorobenzoyl)-2-deoxy-.alpha.-D-erythro-pentofuranosyl]-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.